

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

(Other instructions on reverse side)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. Lease Designation and Serial No. U-36490
b. Type of Well Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		7. Unit Agreement Name Bradford Canyon
2. Name of Operator Raymond T. Duncan c/o PERMITCO		8. Farm or Lease Name Bradford Canyon
3. Address of Operator 1020-15th St., Suite 22-E Denver, CO 80202		9. Well No. #1-25
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 2095' FNL and 1885' FWL At proposed prod. zone SE NW		10. Field and Pool, or Wildcat Undesignated
14. Distance in miles and direction from nearest town or post office* Located 13.3 miles from Hatch Trading Post, Utah.		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 25, T37S-R24E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 550'	16. No. of acres in lease 640	12. County or Parrish San Juan
18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. none	17. No. of acres assigned to this well 160	13. State Utah
19. Proposed depth 5550'	20. Rotary or cable tools Rotary	
21. Elevations (Show whether DF, RT, GR, etc.) 4980' Gr.	22. Approx. date work will start* November 15, 1982	

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
17-1/2"	13-3/8"	48#	110'	Cement to surface
12-1/4"	8-5/8"	24#	2500'	Circulated to surface
7-7/8"	5-1/2"	15.5#	5550'	300 sx - or suffic. to cover zones of interest

We propose to drill a well to 5550' to test the Ismay and Desert Creek formations. If productive, we will run casing and complete. If dry, we will plug and abandon as per MMS and State of Utah requirements.

RECEIVED
NOV 3 1982

DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Signed W. S. Fallin Title Production Manager Date 11/1/82
W.S. Fallin

(This space for Federal or State office use)

Permit No. _____ Approval Date _____

Approved by _____ Title _____

Conditions of approval, if any:

**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**

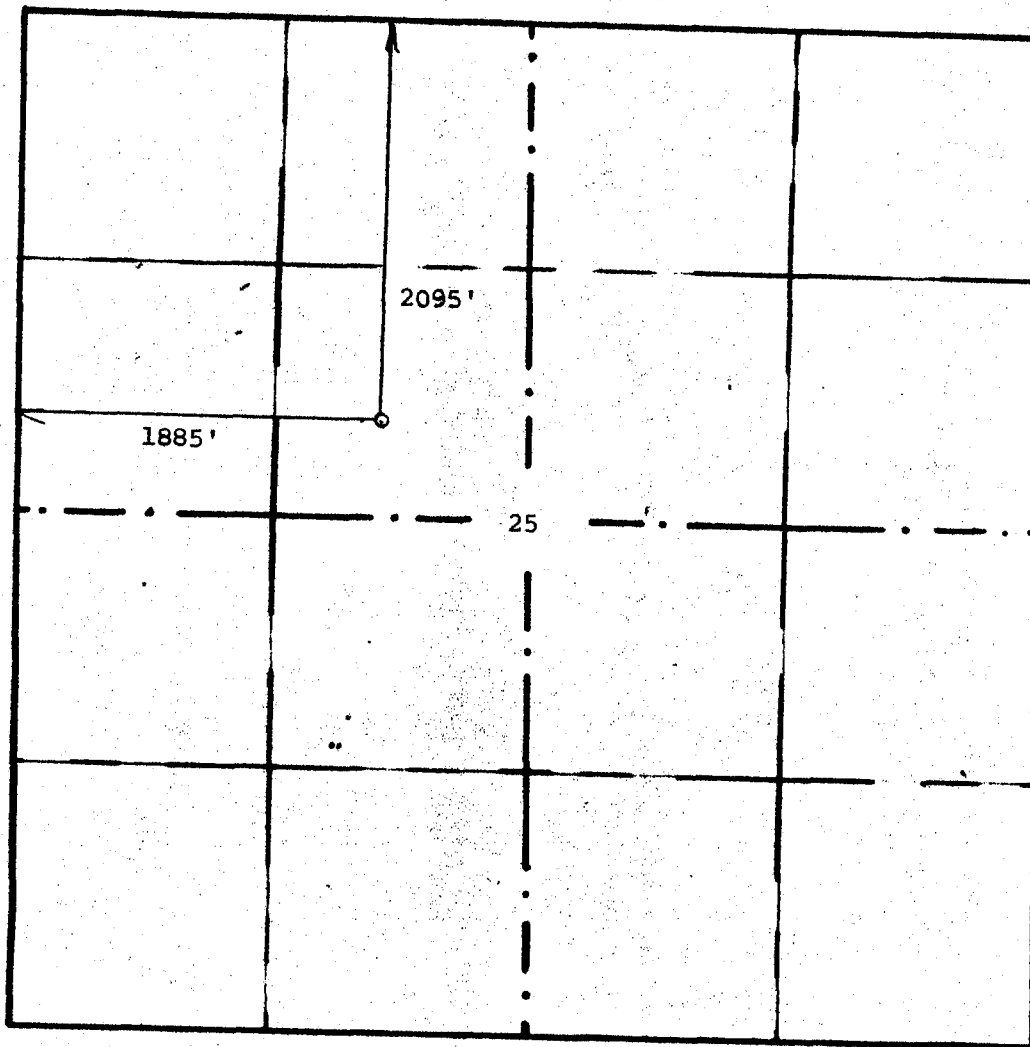
DATE: 11-8-82
BY: Harmon E. Hunt

*See Instructions On Reverse Side

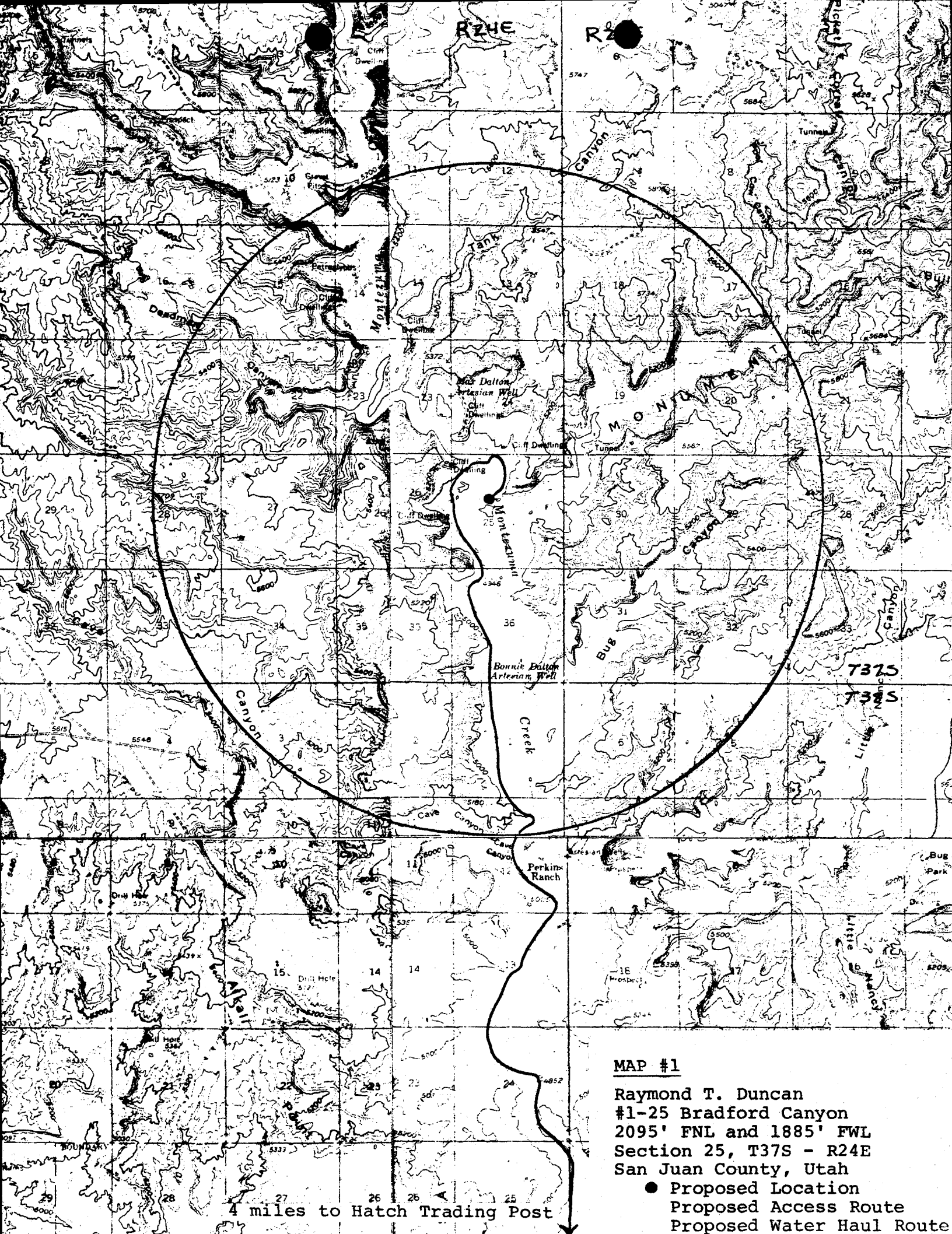


POWERS ELEVATION

Well Location Plat



Operator Raymond T. Duncan		Well name 1-25 Bradford Canyon	
Section 25	Township 37 South	Range 24 East	Meridian Salt Lake
Footages 2095' FNL & 1885' FWL			County/State San Juan, Utah
Elevation 4980'	Requested by Lisa Green		
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>26 October 1982</p> <p><i>Gerald G. Huddleston</i> Gerald G. Huddleston, L.S. Utah Exception</p>			

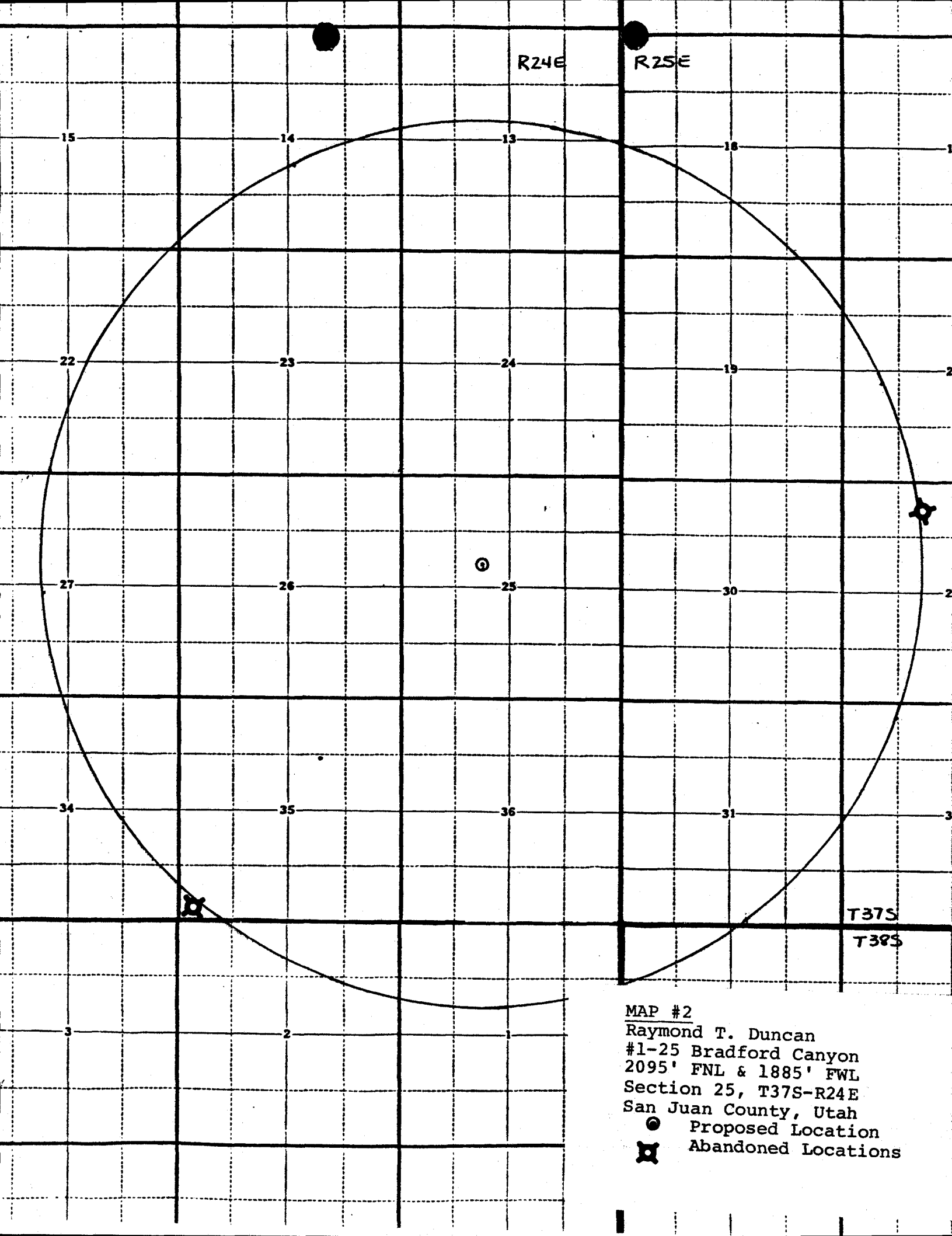


MAP #1

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

- Proposed Location
- Proposed Access Route
- Proposed Water Haul Route

4 miles to Hatch Trading Post



NTL-6 PROGRAM

APPROVAL OF OPERATIONS

#1-25 BRADFORD CANYON

2095' FNL and 1885' FWL
Sec. 25, T37S - R24E
San Juan County, Utah

Prepared For:

RAYMOND T. DUNCAN

By:

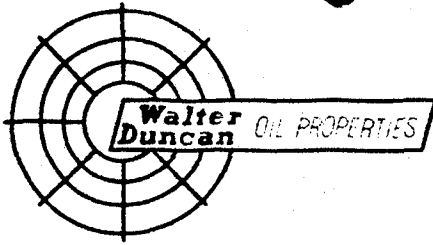
PERMITCO
1020 Fifteenth Street, Suite 22E
Denver, Colorado 80202

Copies Sent To:

- 4 - MMS - Salt Lake City, Utah
- 1 - MMS - Durango, Colorado
- 1 - BLM - Monticello, Utah
- 1 - State of Utah, Minerals Division
- 1 - Raymond T. Duncan, Denver, Colorado

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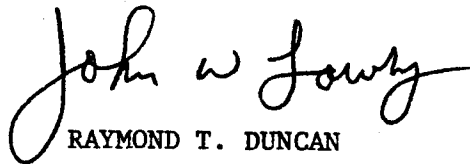


1777 SOUTH HARRISON STREET • PENTHOUSE ONE
TELEPHONE (303) 759-3323 • DENVER, COLORADO 80210

October 18, 1982

TO WHOM IT MAY CONCERN

Permitco is authorized to act as agent on behalf of Raymond T. Duncan to file applications and necessary paperwork to obtain permits to drill oil and gas wells in the Rocky Mountain Area.


RAYMOND T. DUNCAN

John W. Lowry
District Drilling and Production
Superintendent

TEN POINT COMPLIANCE PROGRAM
OF NTL-6 APPROVAL OF OPERATIONS

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Sec. 25, T37S - R24E
San Juan County, Utah

1. The outcropping geologic formation is the Dakota.
2. The estimated formation tops to be encountered are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Subsea</u>
Hermosa	4075'	-930'
Ismay	5125'	-120'
Lower Ismay	5305'	-300'
Gothic Shale	5355'	-350'
Desert Creek	5375'	-370'
Lower Desert Creek	5440'	-435'
Chimney Rock Shale	5480'	-475'
T.D.	5550'	

3. The following depths are estimated for oil, gas, coal and water bearing zones.

<u>Substances</u>	<u>Formation</u>	<u>Anticipated Depth</u>
Oil/Gas	Ismay	5715'
Oil/Gas	Desert Creek	5850'

4. The proposed casing program will be as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>
Conductor	0-110'	17-1/2"	13-3/8"	48#	K-55	ST&C New
Surface	0-2500'	12-1/4"	8-5/8"	24#	K-55	ST&C New
Production	0-5550'	7-7/8"	5-1/2"	15.5#	K-55	ST&C New

The cement program will be as follows:

<u>Conductor</u> 0-110'	<u>Type and Amount</u> Regular cement to surface
<u>Surface</u> 0-2500'	<u>Type and Amount</u> Class G plus additives - circulated to surface.
<u>Production</u> 0-5550'	<u>Type and Amount</u> 300 sx class "G" plus additives, or sufficient to cover zones of interest.

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TEN POINT COMPLIANCE PROGRAM
OF NTL-6 APPROVAL OF OPERATIONS

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Sec. 25, T37S - R24E
San Juan County, Utah

5. Blowout preventer stack will consist of a 10", 3000# W.P. BOP. See BOP Diagram. Equipment will be tested prior to drilling out from under surface and operational checks will be made daily thereafter.
6. Drilling fluid will be as follows:
- | <u>Interval</u> | <u>Mud Type</u> | <u>Mud Wt.</u> | <u>Visc.</u> | <u>F/L</u> |
|-----------------|-----------------|----------------|--------------|------------|
| 0-4200' | Natural | 9.0-9.2 | 35 | 10-20 |
| 4200'-T.D. | Chem Gel | 9.5-12.0 | 45 | 10 |
7. Auxiliary equipment to be used is as follows:
- Kelly Cock
 - Float above the bit
 - Monitoring of the system will be done visually.
 - A sub with a full opening valve will be on the floor when the kelly is not in use.
8. Testing, logging and coring will be as follows:
- Cores - One core will be run in the Desert Creek
 - Drill stem tests - will be run in the Ismay and Desert Creek Formation.
 - The logging program will consist of a Dual Induction from 2500' to T.D.; BHC Density/CHL from 2500' to T.D. and Dipmeter from 5300' to T.D.
 - Stimulation will be determined after the evaluation of the logs and any DST's that are run. If treatment is needed, a sundry notice will be submitted.
 - We request permission to flare the Ismay and Desert Creek formations for a period of 120 days each. This time period is necessary to adequately evaluate the extent of the reservoir and to analyze the decline rates.
9. No abnormal pressures or hydrogen sulfide gas are anticipated during the course of drilling to T.D. The maximum bottom hole pressure to be expected is 3400 psi.
10. Raymond T. Duncan plans to spud the #1-25 Bradford Canyon on November 15, 1982 and intends to complete the well within approximately one month after the well has reached T.D.

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MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

Gentlemen:

We submit the following application and plats for permission to drill the #1-25 Bradford Canyon.

1. Existing Roads

- a. The proposed well site and elevation plat is shown on Plat #1.
- b. Directions to the location from the Hatch Trading Post are as follows: Go northerly on Montezuma Creek Road for 13.0 miles to a low water crossing. Cross the creek and go southerly on a one lane dirt road for 0.3 miles to a seismic trail and proposed access.
- c. For access roads - See Map #1.
- d. All existing roads within a 3-mile radius are shown on Map #1.
- e. This is a development well. All roads within a one-mile radius of the well site are shown on Map #1.
- f. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.
- g. Improvement to existing access will be necessary and will be limited to a total existing disturbed width. New construction will be limited to a total disturbed width of 20 feet. Surfacing material will not be placed on the access road or location without prior BLM approval.
- h. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

2. Planned Access Roads

- a. New access road will be approximately 20 feet wide.
- b. The grade will be 4% or less.

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MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

2. Planned Access Roads

- c. No turnouts are planned.
- d. There will be no ditching. Water bars will be constructed at the discretion on the dirt contractor. (To be done at a later date if production is established).
- e. Montezuma Creek runs North and South along the west side of the location.
- f. No culverts will be necessary. Maximum cut is 4 feet. Maximum fill is 10 feet.
- g. Only native materials will be utilized.
- h. No gates, cattle guards, or fence cuts will be necessary.
- i. The last 200 feet will be new access road and will be 20 feet wide with no grade to exceed 4%.

3. Location of Existing Wells Within a 2-Mile Radius (See Map #2)

- a. Water wells - none
- b. Abandoned wells - two
- c. Temporarily abandoned wells - none
- d. Disposal wells - none
- e. Drilling wells - none
- f. Producing wells - none
- g. Shut in wells - none
- h. Injection wells - none
- i. Monitoring observation wells - none

4. Location of Existing and/or Proposed Facilities

- a. There is one set of production facilities and gas gathering lines owned and controlled by Raymond T. Duncan within a one-mile radius of the proposed well.
- b. New facilities contemplated in the event of production are shown on Diagram #1.

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Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

4. Location of Existing and/or Proposed Facilities

- b. 1. Proposed tank battery will be located as shown on Diagram #1.
2. All flow lines from well site to battery site will be buried below frost line depth.
3. Dimensions of the facilities will be 300 feet long and 75 feet wide. See Diagram #1.
4. All above ground production facilities will be painted a neutral color.
5. Only native materials will be utilized.
6. An earthen dike utilizing subsoil in the surrounding area will be built around the storage tanks and separator to contain oil should a leak occur. Any necessary pits will be properly fenced to prevent any wildlife entry. The production pit will be flagged overhead.
7. The reserve pit will be fenced and allowed to dry. Then all pits will be backfilled. The location not needed for production will be leveled, contoured and reseeded as per surface owner's requirements.
8. The access shall be upgraded to the following specifications (if production is established). The road shall be 20 feet wide, crowned and ditched. Culverts will be installed as deemed necessary by the dirt contractor.

5. Location and Type and Water Supply

- a. The source of water will be the Bonnie Dalton Artesian Well which is located in Section 36, T38S - R24E. Directions to the water source are shown on Map #1.
- b. Water will be trucked to location over the roads marked on Map #1.
- c. No water well is to be drilled on this lease.
- d. A temporary use permit will be obtained from the Utah State Engineer (801/647-1303) before using this water source.

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Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

6. Source of Construction Materials

- a. Only native materials are to be utilized.
- b. No construction materials will be taken off Federal land.
- c. Surface and subsoil materials in the immediate area will be utilized. Any gravel will be purchased from a commercial source.
- d. All major access roads are shown on Map #1.

7. Methods for Handling Waste Disposal

- a. Drill cuttings are to be contained and buried in the reserve pit.
- b. Drilling fluids are to be contained in the reserve pit.
- c. The produced fluids will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.
- d. A chemical porta-toilet will be furnished with the drilling rig.
- e. If a trash pit is used, it will be constructed near the mud tanks with steep sides and dug at least six feet into solid, undisturbed material. It will be totally enclosed with fine mesh wire before the rig moves in.
- f. The reserve pit will not be lined. At least half of the capacity will be in cut.
- g. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling operations begin. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
- h. Trash will not be disposed of in the reserve pit. Garbage and non-flammable waste are to be contained in the trash pit. Flammable waste is to be contained in the burn pit. The trash is to be burned periodically and the remains buried when the well is completed. A burning permit will be obtained from the State Fire Warden (801/587-2705) before burning trash.

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MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

7. Methods for Handling Waste Disposal

- i. All trash, garbage, etc. is to be gathered and buried at the end of drilling operations and covered with a minimum of 2 feet of earth. Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris resulting from the operation. Non burnable debris will be hauled to a local town dump. Reserve and mud pits will be allowed to dry after drilling is completed and then adequately filled and leveled. All garbage and sewage pits will be filled as soon as the rig leaves the location.

8. Ancillary Facilities

There are no airstrips, camps, or other facilities planned during the drilling of the proposed well.

9. Well Site Layout

- a. See Diagram #2 for rig layout. See Diagram #4 for cross section of drill pad. See Diagram #3 for cuts and fills.
- b. The location of mud tanks; reserve, burn and trash pits; pipe racks; living facilities and soil stockpiles will be shown on Diagram #2. The location will be laid out and constructed as discussed during the pre-drill conference.

10. Plans for Restoration of Surface

- a. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of 2 feet of compacted soil.
- b. The operator or his contractor will contact the BLM office in Monticello, Utah (801/587-2201), 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit will be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.

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MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

10. Plans for Restoration of Surface (cont.)

- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be scarified with the contour to a depth of 12 inches.
- f. Water bars will be built as follows to control erosion.

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 feet
2-4%	Every 100 feet
4-5%	Every 75 feet
5+%	Every 50 feet

- g. Seed will be broadcast between October 1 and February 28. When broadcast seeding, a harrow or similar implement will be dragged over the seeded area to assure seed cover. Seed Mixture to be specified by the surface owner. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.
- h. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.
- i. The access shall be upgraded to an all-weather road if production is established.
- j. The top 8 inches of soil material will be removed from the location and stockpiled separate from the trees on the SW side of the location.

11. Other Information

- a. 1. Topography - the location is situated on a large ridge crest.
- 2. Soils - an aeolian fine sand
- 3. Vegetation - penyon and juniper, snakeweed, sage and bunch grass
- 4. Fauna - rabbits, snakes and other burrowing animals.

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A Petroleum Permitting Company

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S-R24E
San Juan County, Utah

11. Other Information (cont.)

- b. Surface in the area is owned by William Monty Dalton and Guy C. Tracey and is used for sheep grazing.
- c. The nearest water is Montezuma Creek.
- d. The nearest occupied dwelling is approximately 5 miles south of the location at the Perkins Ranch.
- e. An archeological study was performed. No significant cultural resources were found and clearance is recommended. See Archeological Report attached.
- f. Drilling will begin November 15, 1982.
- g. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they are subject to prosecution for disturbing archeological sites or picking up artifacts. Salvage or excavation of identified archeological sites will only be done if damage occurs.
- h. The operator will notify the San Juan Resource Area BLM Office in Monticello, Utah (801/587-2201) 48 hours prior to beginning any work on public land.
- i. The San Juan County Road Department in Monticello, Utah, will be contacted prior to use of county roads (801/587-2249).
- j. The operator will give the dirt contractor a copy of the Surface Use Plan and any additional BLM stipulations before any work is done.

12. Lessee's or Operator's Representative

Steve Fallin will be Raymond T. Duncan's representative. Mr. Fallin can be reached by telephone in Denver, Colorado, at his office (303/759-3303) or at home (303/922-2018). Please contact Miss Lisa Green (303/595-4051) for permit matters.

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan

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A Petroleum Permitting Company

MULTI-POINT REQUIREMENTS
TO ACCOMPANY A.P.D.

Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Section 25, T37S-R24E
San Juan County, Utah

13. Certification (cont.)

are, to the best of my knowledge, true and correct; and,
that the work associated with the operations proposed herein
will be performed by Raymond T. Duncan and its contractors
and subcontractors in conformity with the plan and the terms
and conditions under which it is approved.

Date

11/1/82

Steve Fallin
Steve Fallin, Production Manager
for Raymond T. Duncan

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Montezuma Creek

Scale: 1" = 50'

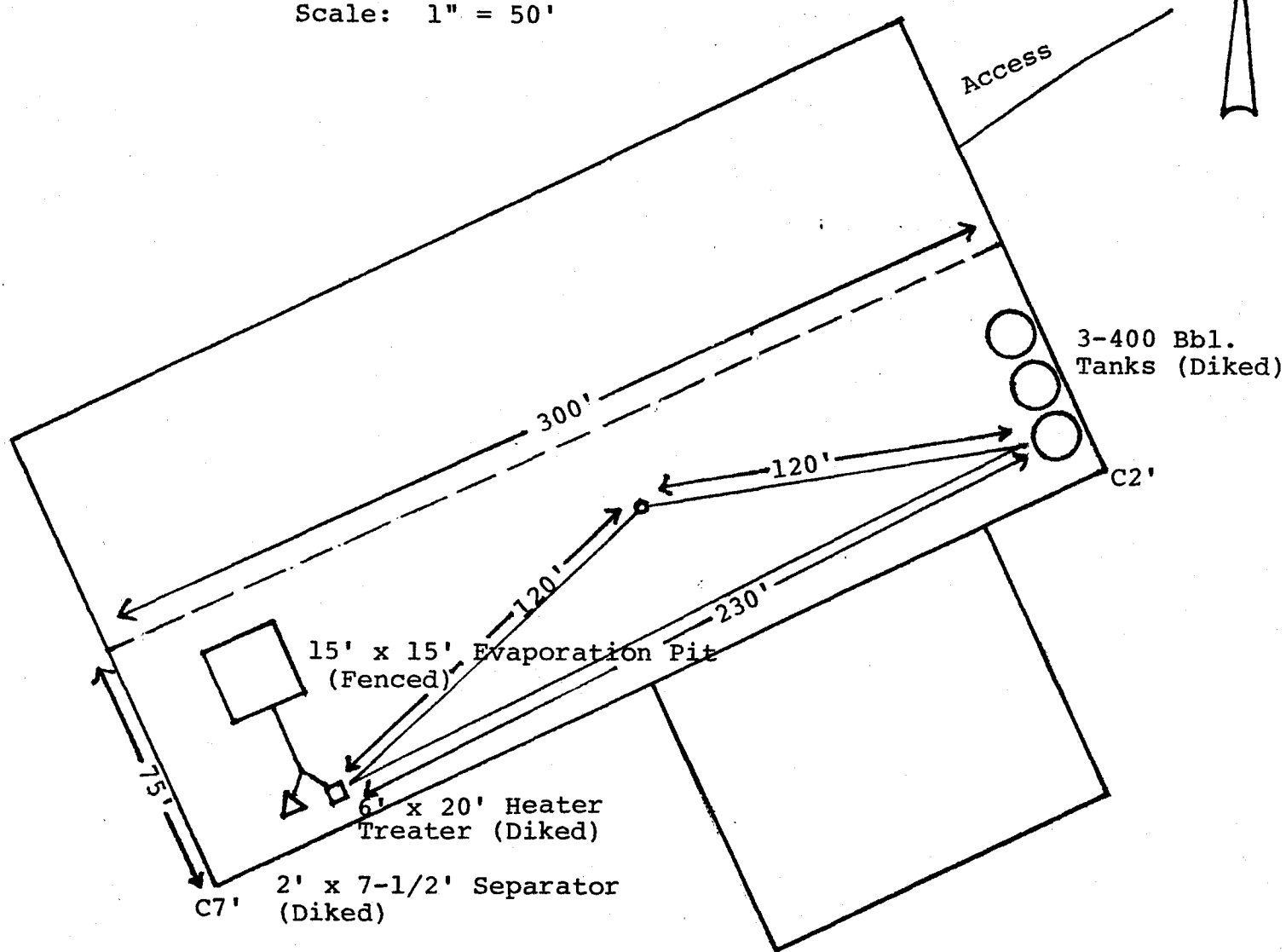


DIAGRAM #1
Raymond T. Duncan
#1-25 Bradford Canyon
2095' FNL and 1885' FWL
Sec. 25, T37S - R24E
San Juan County, Utah

PRODUCTION FACILITIES
LAYOUT

Montezuma Creek

Scale: 1" = 50'

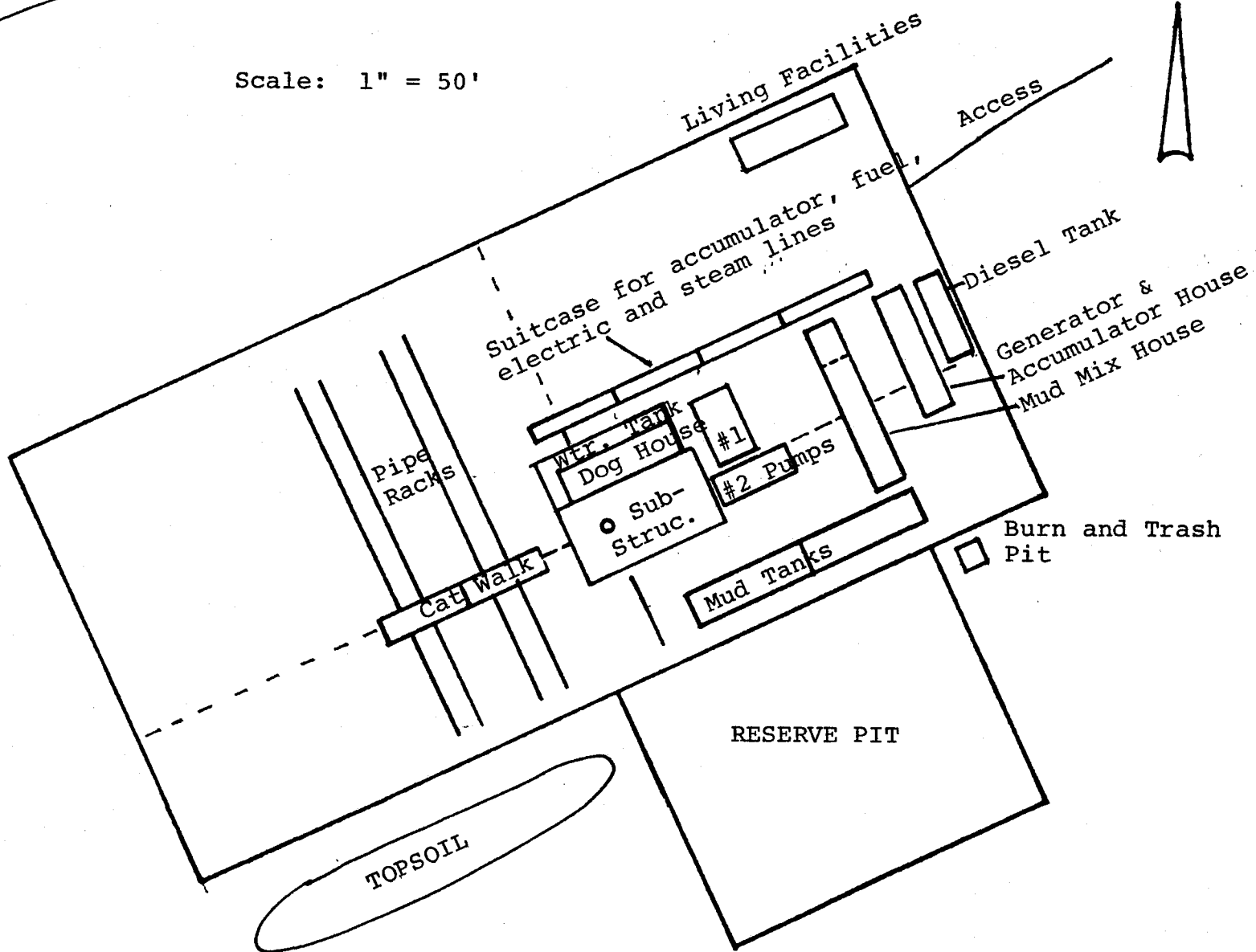


DIAGRAM #2

Rig Layout

Raymond T. Duncan

#1-25 Bradford Canyon

2095' FNL and 1885' FWL


Section 25, T37S - R24E

San Juan County, Utah

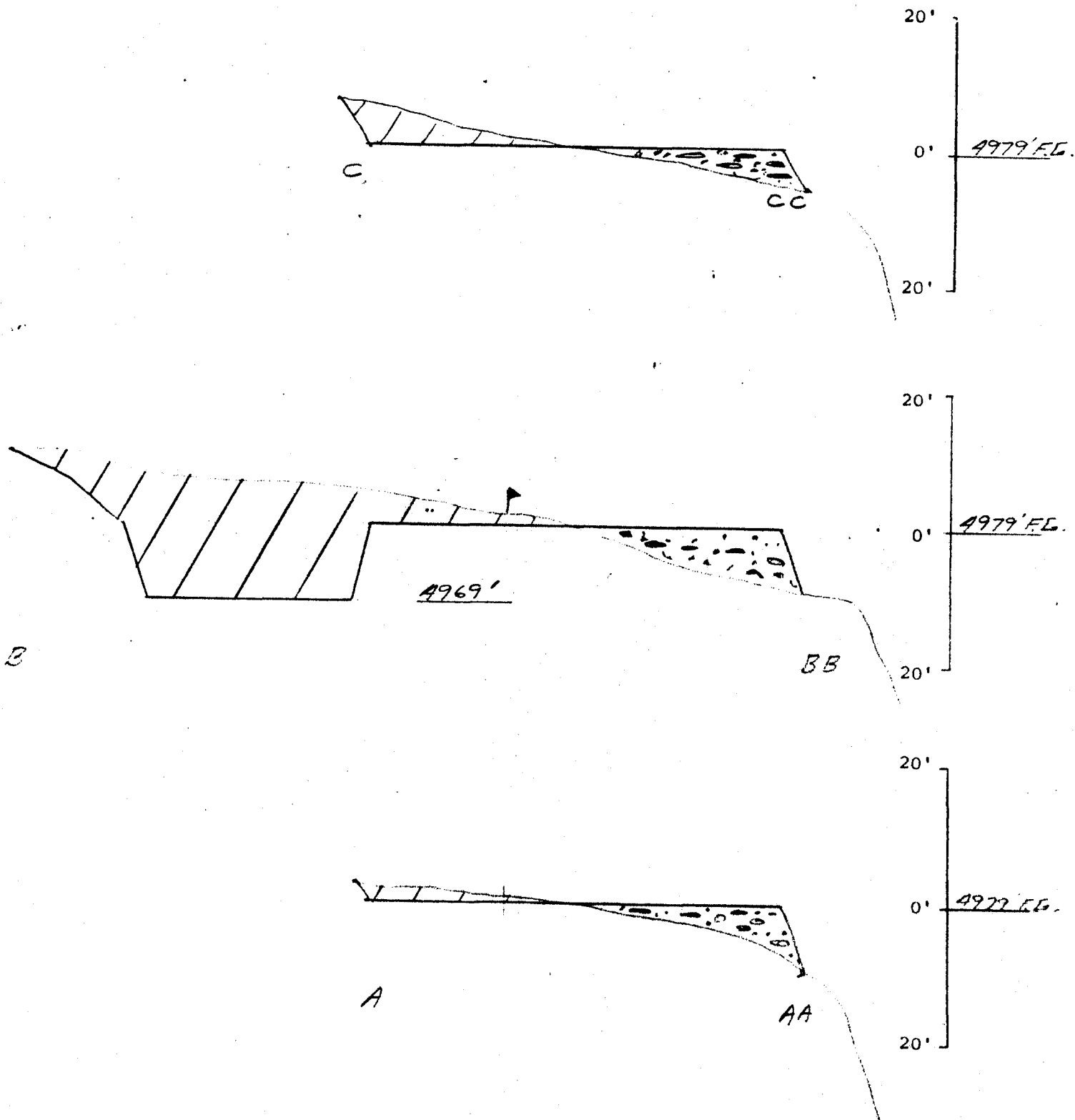


POWERS ELEVATION

DIAGRAM #3
Raymond T. Duncan
#1-25 BRADFORD CANYON
2095' FNL and 1885' FWL
Section 25, T37S - R24E
San Juan County, Utah

Cut ///////////////
Fill: 

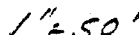
Scales: 1"=50'H.
1'=20'V.





#1-25 Bradford Canyon

N

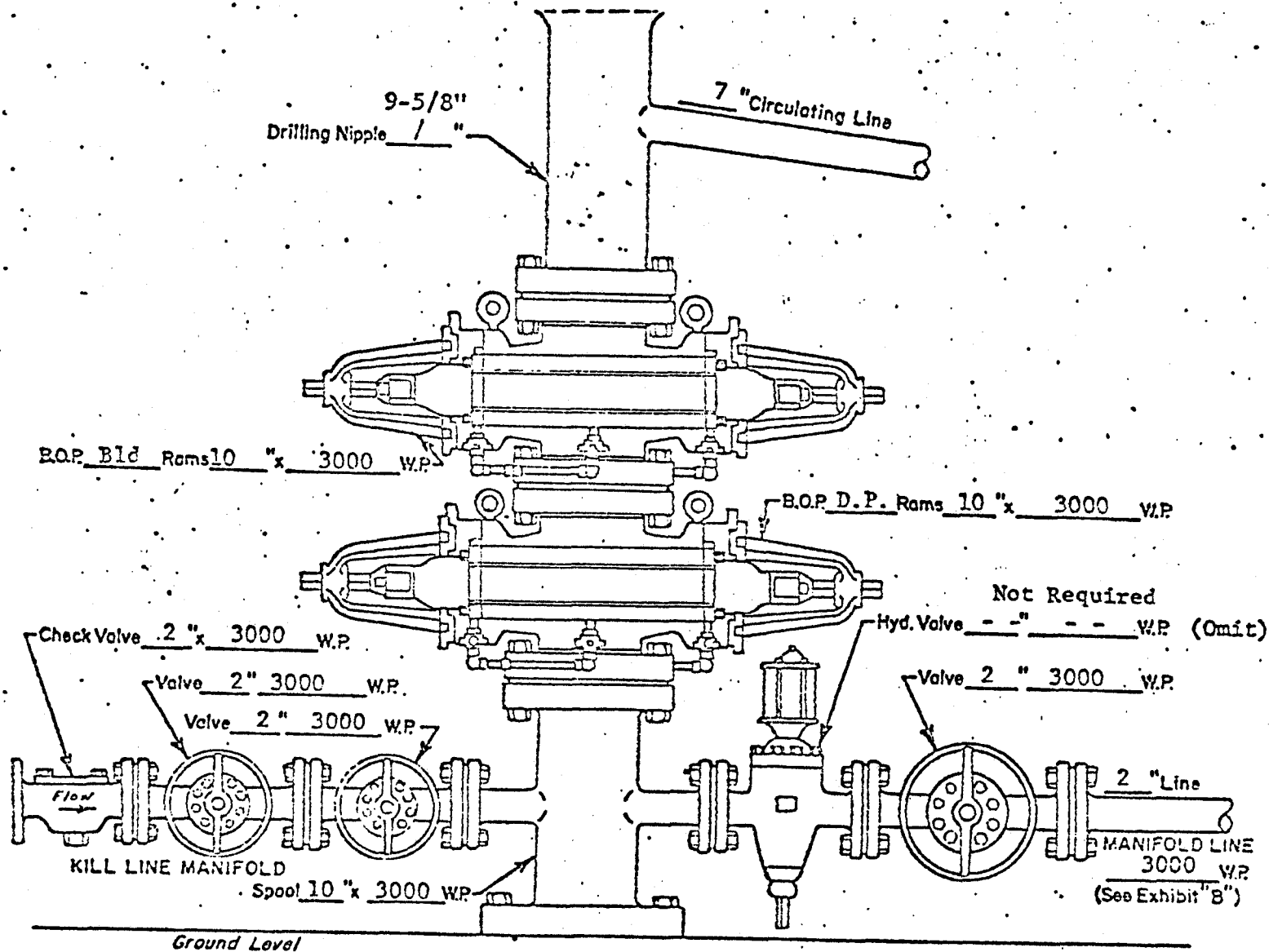


San Juan County, Utah

COLEMAN DRILLING CO.

WELL NAME: _____

LOCATION : _____



WELL HEAD B.O.P.

3000 # W.P.

☒ Hydraulic

La Plata Archeological Consultants, Inc.

Post Office Box 783
Dolores, Colorado 81323
(303) 882-4933

October 29, 1982

USGS
Oil & Gas Branch
1745 West
1700 South
Salt Lake City, Utah 84111

Dear Sir:

Please find enclosed the archeological survey report for Walter Duncan Oil Properties' 1-25 Bradford Canyon well pad and access road, located in San Juan County, Utah. Land surface is privately, with Federal minerals involved. Archeological clearance is recommended.

Sincerely,



Patrick L. Harden
President

Distribution:

USGS - Salt Lake City (4)
USGS - Durango
Utah State Historical Society
Permitco
Walter Duncan Oil Properties

PLH/rjs

AN ARCHEOLOGICAL SURVEY OF
WALTER DUNCAN OIL PROPERTIES'
1-25 BRADFORD CANYON WELL PAD
AND ACCESS ROAD
SAN JUAN COUNTY, UTAH

LAC REPORT 8235

BY
PATRICK L. HARDEN

LA PLATA ARCHEOLOGICAL CONSULTANTS, INC.
P.O. BOX 783
DOLORES, COLORADO 81323
303-882-4933

OCTOBER 28, 1982

Federal Antiquities Permit
#82-UT-160

Prepared For:
Walter Duncan Oil Properties
Penthouse
1777 S. Harrison St.
Denver, Colorado 80210

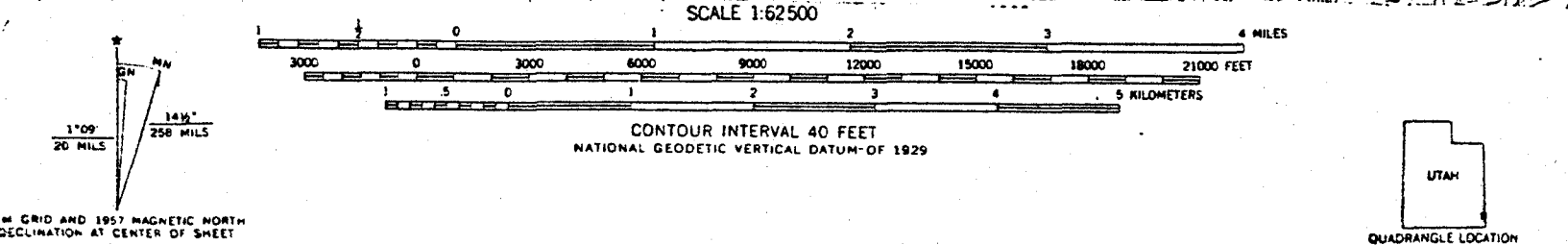
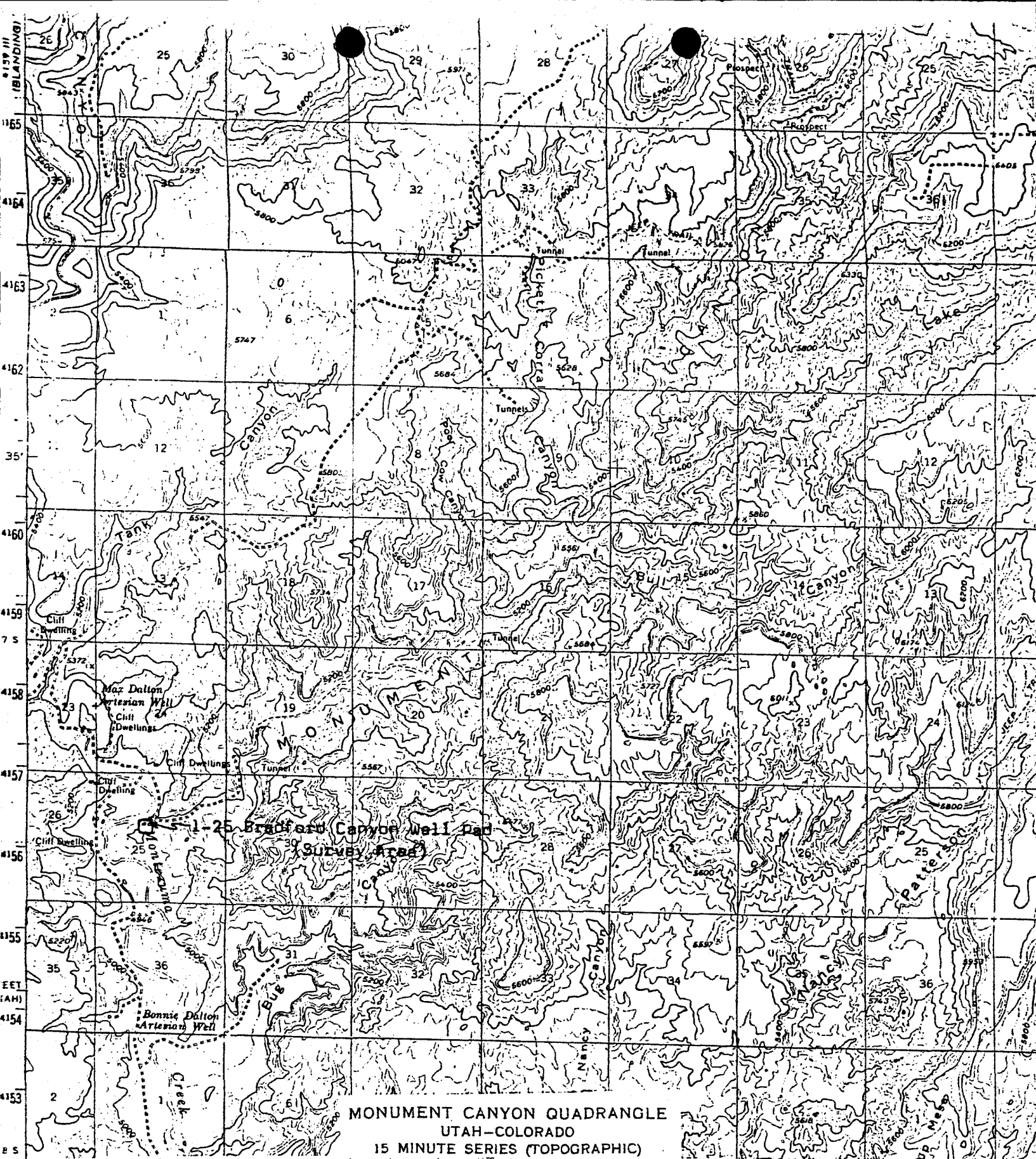
ABSTRACT

An archeological survey of Walter Duncan Oil Properties' 1-25 Bradford Canyon well pad was conducted on October 22, 1982, by Patrick Harden of La Plata Archeological Consultants, Inc. The project is located on privately owned land (surface), with Federal minerals involved. The well pad is located in Montezuma Canyon, San Juan County, Utah. Since a large Anasazi site complex is located in the vicinity of the well pad, the pad location has been moved in order to avoid surface features and suspected subsurface cultural deposits on the site. The present location of the well pad will not adversely affect the cultural resources on the site. Archeological clearance is recommended for this project.

INTRODUCTION

The archeological survey for the 1-25 Bradford Canyon well pad project, proposed by Walter Duncan Oil Properties, was requested by Ms. Lisa Green, acting permit agent for Duncan Oil. The survey was performed in conjunction with the pre-drill inspection conducted on October 22, 1982. Persons attending the pre-drill were Ms. Green (Permitco), John Lowery (Duncan Oil), Don Englishman (USGS), Gerald Huddleston (Powers Elevation), Al Heaton (Urado Construction), and Patrick Harden (LAC).

The proposed project consists of the construction of a single well pad ca. 250 x 300 feet in size, and improvements to ca. 200' of existing seismograph road. The project is located in the SE $\frac{1}{4}$, NW $\frac{1}{4}$, Section 25, T37S, R24E, San Juan County, Utah. The area is included on the Monument Canyon, Utah-Colo. 15' series topographic map (1957).



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80226 OR RESTON, VIRGINIA 22092

A field road and two seismograph trails cross portions of the archeological site in the project area. The older of the seismograph lines failed to record the site (Ebel 1982), but recent seismograph work resulted in the site being identified.

PHYSIOGRAPHY

The project area is located in a broad and relatively flat valley bottom at the confluence of Montezuma and Monument Canyons. The confluence of the intermittent drainages in the Canyons is presently located ca. $\frac{1}{2}$ mile to the south. Montezuma Creek is located adjacent to the pad on the northwest, and Monument Canyon Creek is 1000' southeast. A prominent large knoll is situated in the valley bottom just to the south of the pad location, and the extreme southwest tip of Cedar Point is adjacent to the east. Sediments consist of colluvial sand and gravels along the slopes of the knoll and mesa, with alluvial silt and fine sand in most of the valley bottom. Vegetation consists of sage, wolfberry, snakeweed, and pinyon-juniper on ridges. A riparian vegetation community is found along both drainages near the project area.

EXAMINATION PROCEDURES AND RESULTS

Upon arriving at the well pad location it was found that the center stake was placed on a portion of a large archeological site. Instead of examining the area in search of cultural resources it was necessary to find a location where cultural resources were absent in order to build the pad without disturbing the large site present. The best possible location for

the well pad required moving the center stake from its original location (2050FNL, 2050FWL) ca. 200' southwest (2095FNL, 1885FWL). The current pad location is very close to the archeological site along its north side, but should not adversely affect undisturbed deposits.

An inquiry with the Utah State Antiquities Section indicated that the archeological site had not been recorded; however, the site was located by personnel of DCA during survey of one of the seismograph lines crossing the project area (Swift, personal communication). It has not yet been fully recorded, and a joint effort is planned to document the site. Because of the size and complexity of the site, and since portions of it have already been mapped, it has been decided that cooperation in recording is desirable.

Briefly, the site consists of three separate roomblocks in the valley bottom, with one of these adjacent to the well pad. All of these surface pueblos have been highly disturbed from pot hunting activities. Also, the pueblo located near the well pad has been partially bulldozed, apparently a result of pot hunting. Also present in the valley bottom is what appears to be a Great Kiva depression. A series of wooden stakes in this area may indicate that it has been grided for excavation purposes. Again, there are no records on file with the Antiquities Section of the site having been professionally investigated. Whether the site was excavated by professional archeologists or amateurs is not known.

Also included in the site complex is a series of roomblocks

around the southeast peripheries of the base of the large knoll located in the valley bottom. At least eight kivas and two separate roomblocks are located on top of the knoll. The site complex is multi-component, with BMIII thru PII occupations represented. More information on the site will be available when recording is complete.

The presence of wolfberry over virtually all of the site area in the valley floor denotes its boundaries. The construction superintendent (Al Heaton) is aware of this correlation, and avoidance of the site and wolfberry areas is intended.

Since subsurface features (e.g., pit houses and kivas) and middens are almost always located to the south of surface roomblocks in the Anasazi area, it is felt that the well pad being located to the north of the adjacent roomblock will avoid possible subsurface cultural deposits or features. Also, ground disturbance (bulldozing, seismograph road) in the well pad area indicate no subsurface deposits.

The short access road follows an existing seismograph trail, and will require only minor improvement. This area was archeologically surveyed by walking two parallel transects spaced 10 meters apart.

SUMMARY

Walter Duncan Oil Properties' 1-25 Bradford Canyon well pad was archeologically surveyed by Patrick Harden of La Plata Archaeological Consultants, Inc. on October 22, 1982. The presence of a large Anasazi site complex required the relocation of the

well pad in order to avoid further disturbance to the site. The center stake was moved ca. 200' southwest and no adverse effects to the site should result from pad construction. Personnel involved in construction activities should be cautioned to be alert for possible buried cultural deposits, although none are expected. If, however, cultural materials are uncovered activities should be halted and the resource professionally evaluated.

Given the above stipulation archeological clearance is recommended for this project.

BIBLIOGRAPHY

Ebel, Russ
1982 Survey of Cultural Resources for Grant Geophysical Corporation's Seismic Testing Program in San Juan County, Utah. Fort Lewis College, Durango, Colorado. Manuscript on file with the San Juan Resource Area Office, Bureau of Land Management, Monticello.

Swift, Marilyn
1982 Personal Communication.

OPERATOR RAYMOND T DUNCAN DATE 11-8-82

WELL NAME BRADFORD CANYON # 1-25

SEC SE NW 25 T 37S R 24E COUNTY SAN JUAN

43-037-30846
API NUMBER

FED
TYPE OF LEASE

POSTING CHECK OFF:

☐

INDEX

☒

HL

☐☐

NID

☒

PI

☐☒

MAP

☒☐

PROCESSING COMMENTS:

RJR ✓

APPROVAL LETTER:

SPACING:

☒

A-3

7-27-82
BRADFORD CANYON
UNIT

☐

c-3-a

CAUSE NO. & DATE

☐

c-3-b

☐

c-3-c

SPECIAL LANGUAGE:

☒ RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

☒ AUTHENTICATE LEASE AND OPERATOR INFORMATION

☒ VERIFY ADEQUATE AND PROPER BONDING *FED*

☒ AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

☐ APPLY SPACING CONSIDERATION

☐ ORDER *NO*

☒ UNIT *BRADFORD CANYON*

☐ c-3-b

☐ c-3-c

☒ OUTSTANDING OR OVERDUE REPORTS FOR OTHER WELLS OF THE OPERATOR.

☒ IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

November 8, 1982

Raymond T. Duncan
c/o Permitco
1020 - 15th St., Suite 22-E
Denver, Colorado 80202

RE: Well No. Bradford Canyon 1-25
SENE Sec. 25, T.37S, R.24E
San Juan County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

RONALD J. FIRTH - Engineer
Office: 533-5771
Home: 571-6068

OR

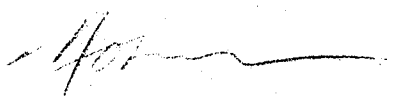
CLEON B. FEIGHT - Director
Office: 533-5771
Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30846.

Sincerely,


Norman C. Stout
Administrative Assistant

NCS/as
cc: MMS
Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*

(Other instructions on reverse side)

MINERALS MANAGEMENT

SERVICE

OIL & GAS OPERATIONS

RECEIVED

Form approved.
Budget Bureau No. 42-R1425.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

5. LEASE DESIGNATION AND SERIAL NO.

U-36490

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Bradford Canyon

8. FARM OR LEASE NAME

Bradford Canyon

9. WELL NO.

#1-25

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Sec. 25, T37S-R24E

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Raymond T. Duncan c/o PERMITCO

3. ADDRESS OF OPERATOR

1020-15th St., Suite 22-E Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

2090'

1890'

2095'

FNL and 1885' FWL

At proposed prod. zone

SE NW

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Located 13.3 miles from Hatch Trading Post, Utah

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

550'

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

none

19. PROPOSED DEPTH

5550'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4980' Gr.

22. APPROX. DATE WORK WILL START*

November 15, 1982

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	110'	Cement to surface.
12-1/4"	8-5/8"	24#	2500'	Circulated to surface.
7-7/8"	5-1/2"	15.5#	5550'	300 sx - or sufficient to cover zones of interest

We propose to drill a well to 5550' to test the Ismay and Desert Creek formations. If productive, we will run casing and complete. If dry, we will plug and abandon as per MMS and State of Utah requirements.

RECEIVED
DEC 07 1982DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

W. S. Fallin

Production Manager

TITLE W.S. Fallin

DATE

11/1/82

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

FOR E. W. GUYNN

APPROVED BY

E. W. GUYNN

TITLE

DISTRICT OIL & GAS SUPERVISOR

DATE

DEC 06 1982

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED
TO OPERATOR'S COPY

NOTICE OF APPROVAL

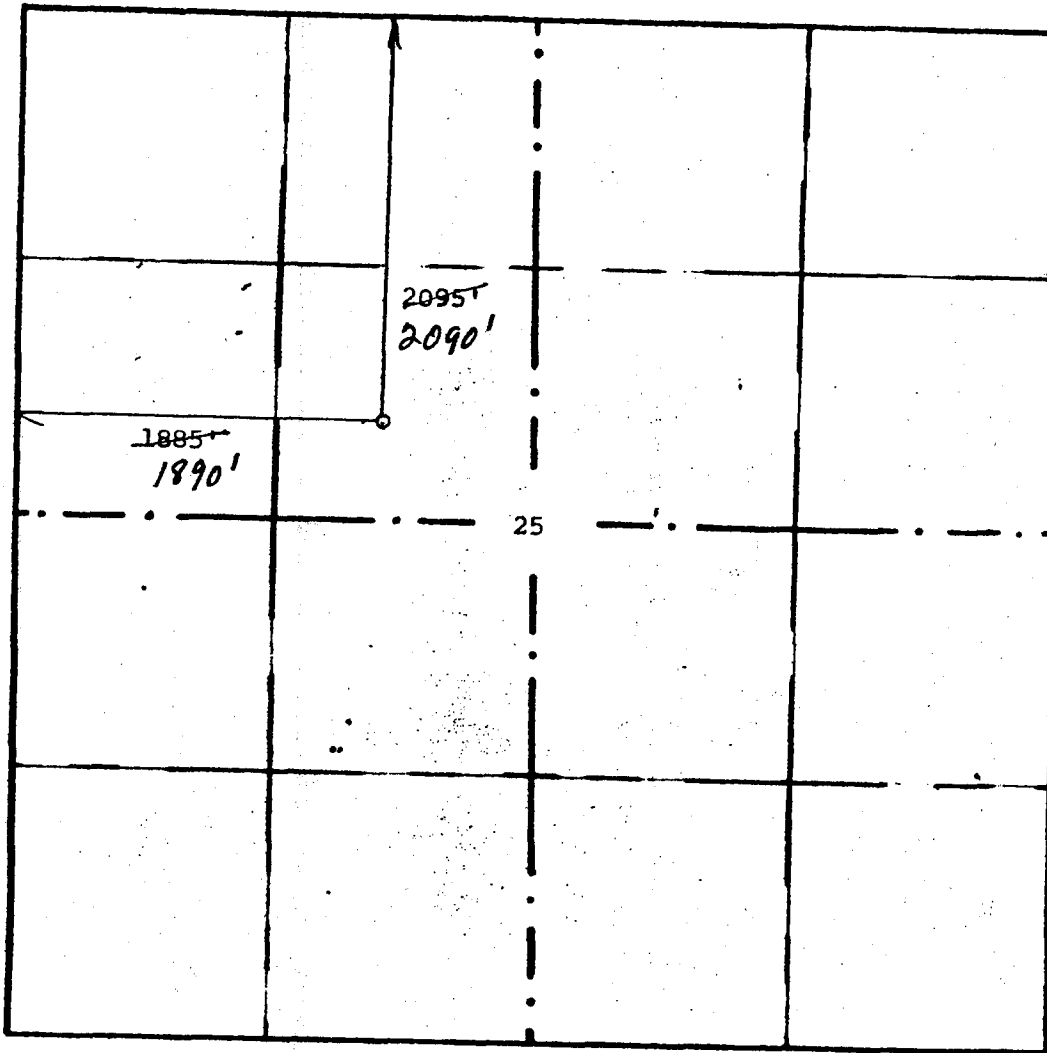
FLARING OR VENTING OF
GAS IS SUBJECT TO NTL-4-A
DATED 1/1/80

State of Utah



POWERS ELEVATION

Well Location Plat



Operator Raymond T. Duncan		Well name 1-25 Bradford Canyon	
Section 25	Township 37 South	Range 24 East	Meridian Salt Lake
Footages 2095' FNL & 1885' FWL			County/State San Juan, Utah
Elevation 4980'	Requested by Lisa Green		
<p>The above plat is true and correct to the best of my knowledge and belief.</p> <p>26 October 1982</p> <p><i>Gerald G. Huddleston</i> Gerald G. Huddleston, L.S. Utah Exception</p>			

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Raymond T. Duncan

WELL NAME: 1-25 Bradford Canyon

SECTION SE 25 TOWNSHIP 37S RANGE 24 E COUNTY San Juan

DRILLING CONTRACTOR Arapahoe Drilling

RIG # 11

SPUDDED: DATE 12-28-82

TIME 11:00 AM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY Paula

TELEPHONE # 303-759-3303

DATE 12-29-82 SIGNED AS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil ☐ well ☐ gas well ☐ other ☒ Dry Hole
2. NAME OF OPERATOR
Raymond T. Duncan
3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1, Denver, CO 80210
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 2090' FNL, 1890' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* D & A ☐
(other) ☐

SUBSEQUENT REPORT TO:

RECEIVED
JAN 24 1983

**DIVISION OF
OIL, GAS & MINING**

5. LEASE
U-36490
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
Bradford Canyon Unit
8. FARM OR LEASE NAME
Bradford Canyon
9. WELL NO.
1-25
10. FIELD OR WILDCAT NAME
Undesignated
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 25-37S-24E
12. COUNTY OR PARISH
San Juan
13. STATE
Utah
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)
4980' GL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Above captioned well was plugged as follows:

Class "B" Neat cement, total of 264 sx.

T.D. - 5100' (436') 122 sx.
4100' - 3900' (200') 56 sx.
2600' - 2400' (200') 56 sx.
100' - surface (100') 30 sx.

Job completed @ 5:30 a.m. January 14, 1983.
Rig released @ 10.00 a.m. 1/14/83.

Log Tops:

4068' - Hermosa
5139' - Ismay
5308' - Lower Ismay
5361' - Gothic Shale
5386' - Desert Creek
5471' - Chimney Rock Shale - TD

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED John W. Lowry TITLE Dist. Drlg & Prod. Supt. DATE January 21, 1983

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

Handwritten signature and date: 1-25-83

Well Test Report # 42745 E

— FOR —

RAYMOND T. DUNCAN

Well Name & No.: BRADFORD CANYON UNIT #1-25

County SAN JUAN State UTAH

Test No. 1 Date 01-09-83

Location SEC. 25. T37S R24E

RECEIVED
JAN 26 1983

DIVISION OF
OIL, GAS & MINING

**DST
BASIC
DATA
Report**

Johnston-Macco

A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION

DST BASIC DATA REPORT

TABLE OF CONTENTS

FRONT COVER

- ☒ Title Page
- ☒ Table of Contents
- ☒ Report Description Letter
- ☒ DST Data Summary

SEQUENCE OF EVENTS

- ☒ DST Event Summary
- ☒ Bottomhole Pressure vs. Time Plot (s)
 - ☒ (J-200) Gauge # J-1117
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
- ☐ Bottomhole Temperature vs. Time Plot (s)
 - ☐ Gauge # _____
 - ☐ Gauge # _____
- ☐ Fluid Fill-up Pressure vs. Time Plot
 - ☐ Gauge # _____
- ☐ Teleflow Data Summary
 - ☐ Initial Flow & Shut-in Periods
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- ☐ Surface Pressure vs. Time Plot

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- ☒ Bottomhole Pressure vs. Time Data
 - ☒ (J-200) Gauge # J-1117
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
- ☐ Fluid Fill-up Pressure vs. Time Data
 - ☐ Gauge # _____
- ☐ TELEFLOW Flow Rate & Surface Pressure vs. Time Data
- ☐ Nomenclature & Units

BACK COVER

JOHNSTON-MACCO

Schlumberger

WESTERN REGION
1745 STOUT SUITE 300
DENVER, COLORADO 80202
(303) 623-0760

JANUARY 21, 1983

INTRODUCTION:

THE DRILL STEM TEST OF THE UPPER ISMAY FORMATION WAS MECHANICALLY SUCCESSFUL. THE PIPE AND SAMPLE CHAMBER RECOVERIES INDICATE THE PRESENCE OF GAS, HOWEVER THE TESTED INTERVAL IS PREDOMINANTLY WATER. THERE WAS ENOUGH LIQUID PRODUCED TO DISPLACE THE RATHOLE VOLUME SO THE SAMPLE CHAMBER SHOULD HAVE CAUGHT A REPRESENTATIVE RESERVOIR FLUID SAMPLE.



STEPHEN E. CASMUS
SENIOR SALES ENGINEER
FIELD REPORT #42745 E
TEST #1

A DIV. OF SCHLUMBERGER TECHNOLOGY CORPORATION

TELEPHONE (713) 481-1313

P.O. BOX 36369 • HOUSTON, TEXAS 77036

TESTING AND EVALUATION • COMPLETION, DRILLING, AND FISHING TOOLS • WIRELINE AND HYDRAULIC WORKOVER • GAS LIFT AND SAFETY VALVES

JOHNSTON-MACCO

Schlumberger

Field Report # 42745 E

Denver Region Office
JOHNSTON-MACCO
A DIVISION OF SCHLUMBERGER
TECHNOLOGY CORPORATION
1745 STOUT, SUITE 300
DENVER, CO 80202
PHONE: (303) 623-0760

California Division Office ... (805) 656-1805
Bakersfield ... (805) 324-6037
Long Beach ... (213) 423-1478
Ventura ... (805) 644-7391

Wyoming Division Office ... (307) 235-4883
Casper Testing, PTS, E/L (307) 286-2832
Gillette ... (307) 682-3292
Powell ... (307) 754-3581
Rock Springs ... (307) 362-3681

Ogden Testing, PTS ... (801) 621-6523
Vernal Testing ... (801) 789-3709
Dickinson Testing ... (701) 225-4451
Williston Testing ... (701) 572-9652

DST DATA SUMMARY

Company RAYMOND T. DUNCANWell BRADFORD CANYON UNIT #1-25County SAN JUANState UTAHDate 01-09-83Test # 1Location SEC. 25, T37S R24E

HOLE	T.D. <u>5207</u> ft	Test Interval <u>5177</u> ft to <u>5207</u> ft
	Formation <u>UPPER ISMAY</u>	Packer Depths <u>5171, 5177</u> ft
MUD	Weight <u>10.5</u> lb/gal	Resistivity <u>.44</u> Ω -m @ <u>46</u> °F
MUD FILTRATE	Chlorides <u>12,000</u> ppm	Nitrates _____ ppm
	Resistivity <u>.42</u> Ω -m @ <u>44</u> °F	
REPORTED PIPE RECOVERY	Fluid 1. <u>TOP</u> - GAS CUT % Oil _____ Length <u>184</u> ft Volume <u>.902</u> bbl	
	2. <u>MUD</u> - MUD CUT WATER _____ <u>182</u> _____ <u>.892</u>	
	3. _____	
	Test Tool 4. _____	
PIPE RECOVERY FLUID PROPERTIES	Fluid 1. Resistivity <u>.41</u> Ω -m @ <u>68</u> °F	Chlorides <u>1400</u> ppm Nitrates _____ ppm
	2. <u>.16</u> <u>68</u> <u>51000</u>	
	3. _____	
	Test Tool 4. _____	
Oil Gravity _____ °API @ _____ °F		
SAMPLE CHAMBER RECOVERY	Fluid 1. Gas <u>X</u> Volume <u>.42</u> ft ³ Pressure <u>160</u> psig	
	2. Oil _____ cc GOR _____ scf/bbl	
	3. WATER _____ 1625 CC GLR <u>42</u> scf/bbl	
	4. _____ Oil Gravity _____ °API @ _____ °F	
BOTTOMHOLE PRESSURE BHT <u>127</u> °F Gauge <u>J-1117</u> Depth <u>5189</u> ft	Period 1. Initial Flow _____ Duration <u>18.32</u> min Pressures <u>63</u> psia to <u>107</u> psia	
	2. Initial Shut-In _____ <u>32.22</u> <u>107</u> <u>2060</u>	
	3. Final Flow _____ <u>60.25</u> <u>134</u> <u>223</u>	
	4. Final Shut-In _____ <u>135.19</u> <u>223</u> <u>2220</u>	
	5. _____	
	6. _____	
	Initial Hydrostatic <u>2902</u> psia	Final Hydrostatic <u>2843</u> psia

*Gas Volume is Corrected to Final Flowing Pressure 223 psia& Reservoir Temperature 127 °F

DST EVENT SUMMARY

Field Report # 42745 E

DATE (M/D/Y)	TIME (HR:MIN)	EVENT E.T. (MIN)	EVENT DESCRIPTION	SURFACE PRESSURE (PSIG)	FLOOR MANIFOLD CHOKE SIZE (64ths INCH)
01/09/83	0755	—	SET PACKER 1	—	—
	0757	—	OPENED TEST TOOL FOR INITIAL FLOW 2		1/8 IN.
	0805			9 OZ.	
	0813			12	
	0816	—	CLOSED TEST TOOL FOR INITIAL SHUT-IN 3		
	0846		FINISHED INITIAL SHUT-IN 4		
	0848	—	OPENED TEST TOOL FOR FINAL FLOW 5	5.5	
	0849			2.5	
	0851			3	
	0853			3.5	
	0858			4	
	0903			5	
	0908			5.25	
	0913			5.51	
	0918			6	
	0923			6.25	
	0928			6.5	
	0933			6.5	
	0938			6.5	
	0943			6.5	
	0948			6.5	
	0949		CLOSED TEST TOOL FOR FINAL SHUT-IN 6		
	1204	—	FINISHED FINAL SHUT-IN 7		
	1205	—	UNSEATED PACKER 8	—	—
		—	REVERSED OUT		
		—	BEGAN TRIP OUT OF HOLE		

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 42745E

COMPANY : RAYMOND T. DUNCAN

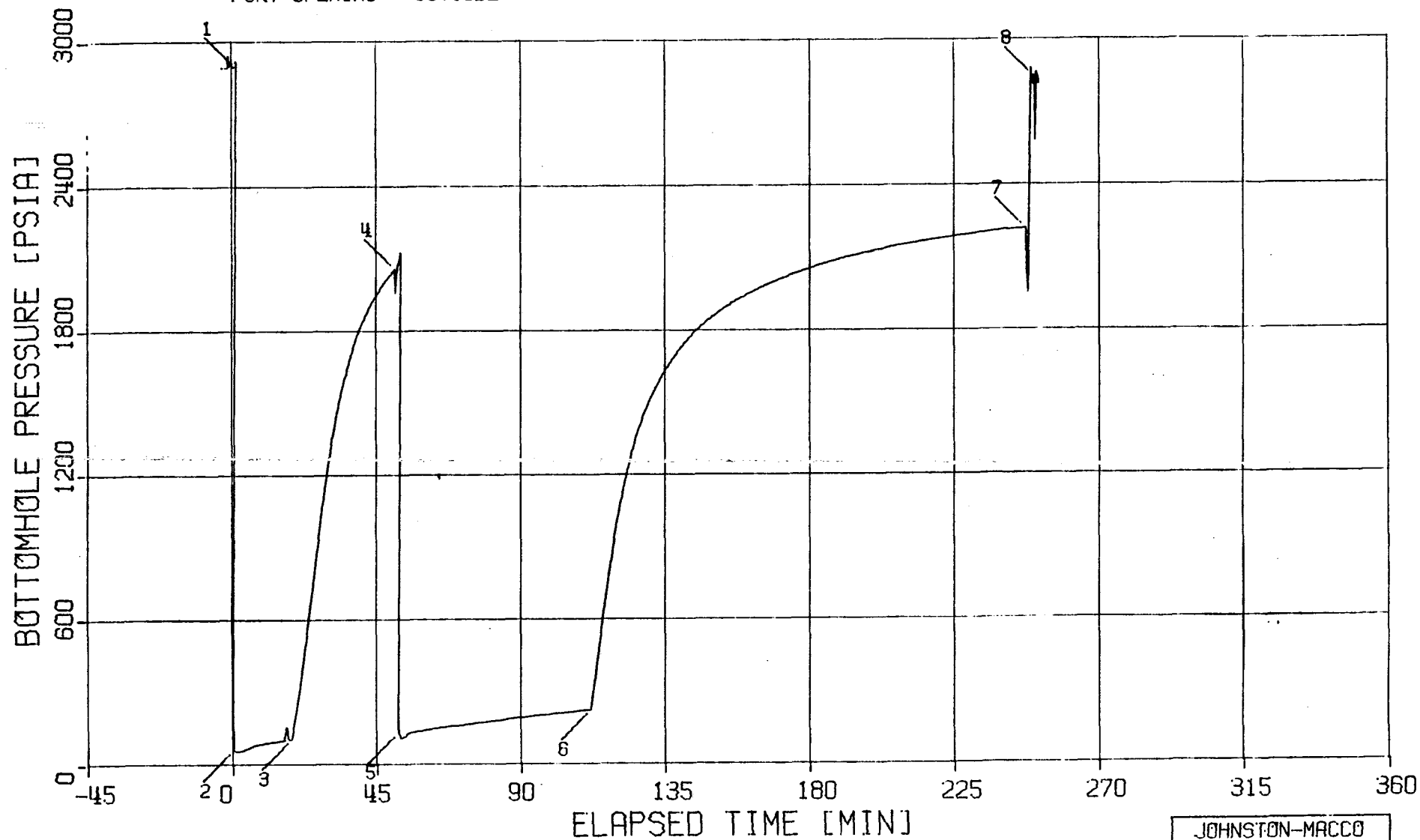
INSTRUMENT NO. J-1117

WELL : BRADFORD CANYON UNIT #1-25

DEPTH : 5189 FT

CAPACITY : 4700 PSI

PORT OPENING : OUTSIDE



JOHNSTON-MACCO
SCHLUMBERGER

FIELD REPORT NO.: 42745 E

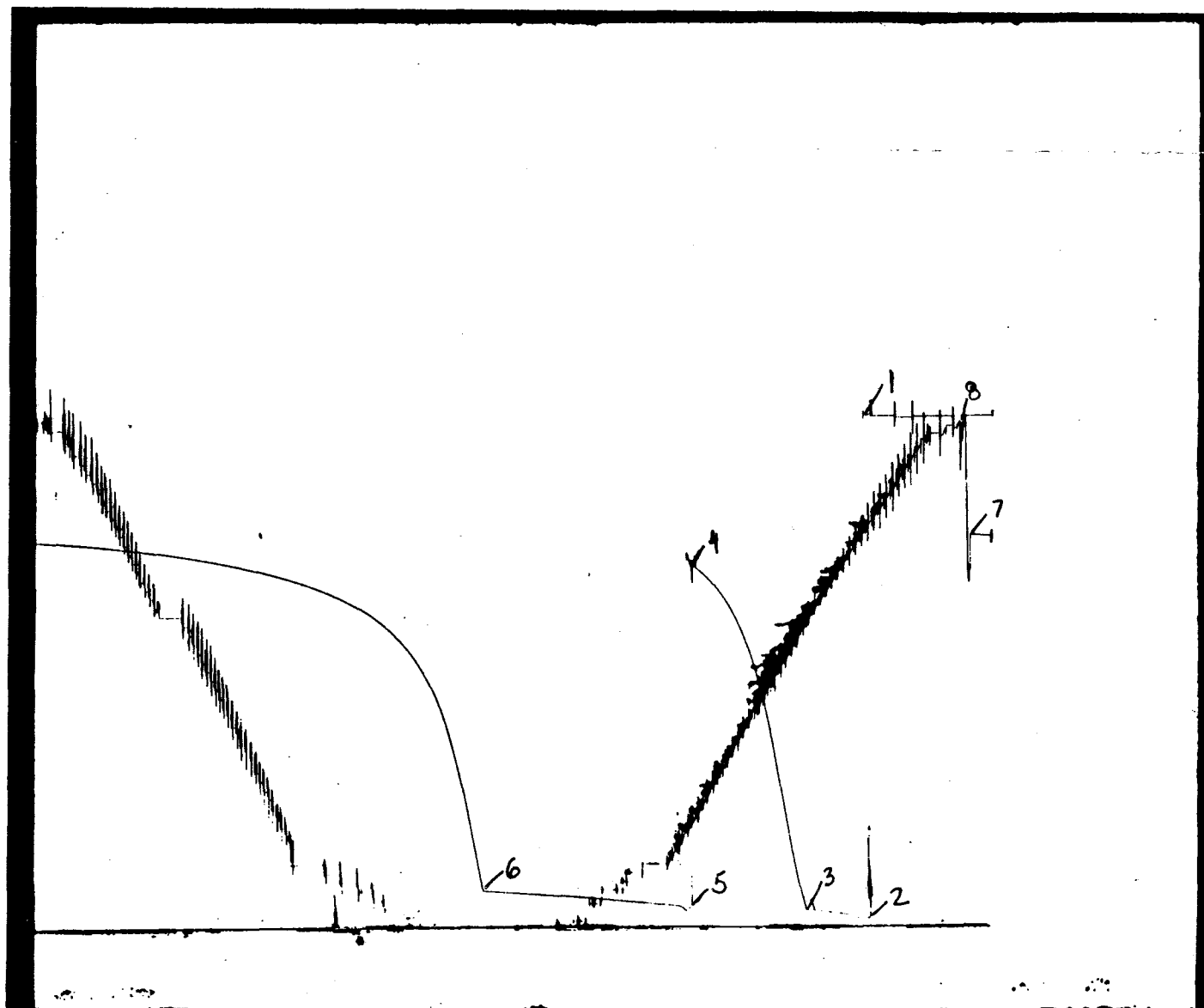
CAPACITY: 4700 PSI

JOHNSTON-MACCO

Schlumberger

INSTRUMENT NO.: J-1117

NUMBER OF REPORTS: 19



DST EQUIPMENT CONFIGURATION

Field Report # 42745 E

	COMPONENT	OD (IN)	ID (IN)	LENGTH (FT)	DEPTH (FT)
SURFACE	FLARE (PIT) LINE				-
	FLOOR MANIFOLD	-	-	-	-
	FLOW HOSE				-
					-
					-
	CONTROL HEAD				-
	DRILL PIPE ABOVE ROTARY TABLE				R.T.
DRILL PIPE & COLLARS	DRILL PIPE	4.50	3.83		
	DRILL COLLARS	4.50	2.25	546	
	REVERSE CIRCULATING SUB				
	DRILL COLLARS	4.50	2.25	91	
TEST TOOL STRING	X-OVER				
	MFE - BYPASS	5.00	.93		
	RECORDER				5148
	JAR				
	SAFETY JOINT				
	SAFETY SEAL				
	PACKER				5171
	BOBTAIL PACKER				5177
	PERFORATION				
	RECORDER (J-503)				5183
	RECORDER (J-1117)				5189
	PERFORATION				
	BULL PLUG				
	CUSHION TYPE		LENGTH (FT)		SURFACE PRESSURE (PSIG)
NONE					
INTERVAL	Type <u>MFE - OPEN HOLE</u>	PERF	Size _____ in Density _____ spf		
	Size <u>7 7/8</u> in		Gun _____ Total _____ shots		
	Weight _____ lb/ft		Interval(s) _____ ft		

 * WELL TEST DATA PRINTOUT *

FIELD REPORT # : 42745E

COMPANY : RAYMOND T. DUNCAN

WELL : BRADFORD CANYON UNIT #1-25

INSTRUMENT # : J-1117

CAPACITY [PSI] : 4700.

DEPTH [FT] : 5189.0

PORT OPENING : OUTSIDE

TEMPERATURE [DEG F] : 127.0

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
1	7:58: 5	9-JA	HYDROSTATIC MUD	1.09	2902
2	7:57: 0	9-JA	START FLOW	0.00	63
3	8:15:19	9-JA	END FLOW & START SHUT-IN	18.32	107
4	8:47:32	9-JA	END SHUT-IN	50.54	2060
5	8:48:34	9-JA	START FLOW	51.56	134
6	9:48:49	9-JA	END FLOW & START SHUT-IN	111.81	223
7	12: 4: 0	9-JA	END SHUT-IN	247.00	2220
8	12: 7: 4	9-JA	HYDROSTATIC MUD	270.07	2843

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	18.32	18.32	63	107
2	51.56	111.81	60.25	134	223

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	18.32	50.54	32.22	107	2060	107	18.32
2	111.81	247.00	135.19	223	2220	223	78.57

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM	TIME, MIN	TIME, MIN	PSIA
*****	*****	*****	*****	*****
8:57:0	9-JA	0.00	0.00	63
8:2:0	9-JA	5.00	5.00	71
8:7:0	9-JA	10.00	10.00	89
8:12:0	9-JA	15.00	15.00	99
8:15:19	9-JA	18.32	18.32	107

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 107
 PRODUCING TIME [MIN] = 18.32

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELT PS	F	LOG HORNER TIME
HH:MM:SS	DD-MM	TIME, MIN	TIME, MIN	PSIA	PS		
*****	*****	*****	*****	*****	*****	*****	*****
8:15:19	9-JA	18.32	0.00	107	0		
8:16:19	9-JA	19.32	1.00	179	72		1.286
8:17:19	9-JA	20.32	2.00	256	49		1.007
8:18:19	9-JA	21.32	3.00	347	40		0.852
8:19:19	9-JA	22.32	4.00	445	38		0.747
8:20:19	9-JA	23.32	5.00	550	43		0.669
8:21:19	9-JA	24.32	6.00	656	48		0.608
8:22:19	9-JA	25.32	7.00	767	59		0.558
8:23:19	9-JA	26.32	8.00	877	70		0.517
8:24:19	9-JA	27.32	9.00	986	79		0.482
8:25:19	9-JA	28.32	10.00	1094	87		0.452
8:27:19	9-JA	30.32	12.00	1279	1 72		0.403
8:29:19	9-JA	32.32	14.00	1439	1 31		0.363
8:31:19	9-JA	34.32	16.00	1587	1 60		0.331
8:33:19	9-JA	36.32	18.00	1670	1 63		0.305
8:35:19	9-JA	38.32	20.00	1758	1 51		0.282
8:37:19	9-JA	40.32	22.00	1830	1 23		0.263
8:39:19	9-JA	42.32	24.00	1889	1 82		0.246
8:41:19	9-JA	44.32	26.00	1940	1 33		0.232
8:43:19	9-JA	46.32	28.00	1985	1 78		0.219
8:45:19	9-JA	48.32	30.00	2022	1 15		0.207
8:47:32	9-JA	50.54	32.22	2060	1 53		0.196

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM	*****	*****	*****
8:48:34	9-JA	51.56	0.00	134
8:53:34	9-JA	56.56	5.00	135
8:58:34	9-JA	61.56	10.00	146
9: 3:34	9-JA	66.56	15.00	155
9: 8:34	9-JA	71.56	20.00	162
9:13:34	9-JA	76.56	25.00	171
9:18:34	9-JA	81.56	30.00	179
9:23:34	9-JA	86.56	35.00	187
9:28:34	9-JA	91.56	40.00	195
9:33:34	9-JA	96.56	45.00	203
9:38:34	9-JA	101.56	50.00	209
9:43:34	9-JA	106.56	55.00	215
9:48:34	9-JA	111.56	60.00	223
9:48:49	9-JA	111.81	60.25	223

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 223

PRODUCING TIME [MIN] = 78.57

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELT P PS	LOG F HORN	LOG TIME
HH:MM:SS	DD-MM	*****	*****	*****	*****	***	*****
9:48:49	9-JA	111.81	0.00	223		0	
9:49:49	9-JA	112.81	1.00	318		95	1.901
9:50:49	9-JA	113.81	2.00	419		96	1.605
9:51:49	9-JA	114.81	3.00	523		00	1.434
9:52:49	9-JA	115.81	4.00	627		04	1.315
9:53:49	9-JA	116.81	5.00	716		93	1.223
9:54:49	9-JA	117.81	6.00	815		92	1.149
9:55:49	9-JA	118.81	7.00	901		78	1.087
9:56:49	9-JA	119.81	8.00	988		65	1.034
9:57:49	9-JA	120.81	9.00	1057		34	0.988
9:58:49	9-JA	121.81	10.00	1126		03	0.947
10: 0:49	9-JA	123.81	12.00	1245	1	22	0.878
10: 2:49	9-JA	125.81	14.00	1344	1	21	0.820
10: 4:49	9-JA	127.81	16.00	1420	1	97	0.772
10: 6:49	9-JA	129.81	18.00	1492	1	69	0.730
10: 8:49	9-JA	131.81	20.00	1551	1	27	0.693
10:10:49	9-JA	133.81	22.00	1604	1	81	0.660
10:12:49	9-JA	135.81	24.00	1648	1	24	0.631
10:14:49	9-JA	137.81	26.00	1687	1	64	0.604
10:16:49	9-JA	139.81	28.00	1724	1	01	0.580
10:18:49	9-JA	141.81	30.00	1756	1	33	0.559
10:23:49	9-JA	146.81	35.00	1823	1	00	0.511
10:28:49	9-JA	151.81	40.00	1875	1	52	0.472
10:33:49	9-JA	156.81	45.00	1920	1	97	0.439

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 223

PRODUCING TIME [MIN] = 78.57

TIME OF DAY HH:MM:SS	DATE DD-MM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELT PS	P	LOG HORNER TIME
*****	*****	*****	*****	*****	*****	***	*****
10:38:49	9-JA	161.81	50.00	1956	1	33	0.410
10:43:49	9-JA	166.81	55.00	1989	1	66	0.385
10:48:49	9-JA	171.81	60.00	2016	1	93	0.364
10:53:49	9-JA	176.81	65.00	2041	1	18	0.344
10:58:49	9-JA	181.81	70.00	2065	1	41	0.327
11: 3:49	9-JA	186.81	75.00	2085	1	62	0.311
11: 8:49	9-JA	191.81	80.00	2103	1	80	0.297
11:13:49	9-JA	196.81	85.00	2119	1	96	0.284
11:18:49	9-JA	201.81	90.00	2133	1	10	0.273
11:23:49	9-JA	206.81	95.00	2148	1	25	0.262
11:28:49	9-JA	211.81	100.00	2160	1	37	0.252
11:33:49	9-JA	216.81	105.00	2171	1	48	0.243
11:38:49	9-JA	221.81	110.00	2182	1	59	0.234
11:43:49	9-JA	226.81	115.00	2192	1	69	0.226
11:48:49	9-JA	231.81	120.00	2201	1	78	0.219
11:53:49	9-JA	236.81	125.00	2208	1	85	0.212
11:58:49	9-JA	241.81	130.00	2214	1	90	0.205
12: 3:49	9-JA	246.81	135.00	2220	1	97	0.199
12: 4: 0	9-JA	247.00	135.19	2220	1	97	0.199

DISTRIBUTION FOR TECHNICAL REPORTS

JB-223-A

COMPANY		FIELD REPORT NO.	
RAYMOND T. DUNCAN		42745 E	
CUSTOMER		DATE	
SAME		1/9/83	
COUNTY		WELL	NO.
SAN JUAN		BRADFORD CANYON UNIT	1-25
		FIELD	
		STATE	
		UTAH	

☐ THIS TEST ONLY ☒ ALL TESTS ON THIS WELL

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SANTA FE ENERGY
 2600 SECURITY LIFE BLDG.
 DENVER, CO 80207
 ATTN: TIM PARKER

2

2

OIL & GAS MINING DIVISION OF SALT LAKE
 4241 STATE OFFICE BUILDING
 SALT LAKE CITY, UT 84114
 ATTN: CLEON B. FEIGHT

DIAMOND SHAMROCK
 410 17TH ST. #600
 DENVER, CO 80202
 ATTN: STAN WHITE

2

2

DEPARTMENT OF INTERIOR MMS
 1745 W. 1700 S.
 SALT LAKE CITY, UT 84104
 ATTN: E.W. GUYNN

MARATHON OIL CO.
 P.O. BOX 2659
 CASPER, WY 82602
 ATTN: BILL SHOCK

1

TRICENTROL
 5675 SO. TAMARAC PKWY GATEWAY PL. #200
 ENGLEWOOD, CO 80111
 ATTN: DICK CRIST

DORCHESTER EXPLORATION
 1675 LARIMAR ST. #600
 DENVER, CO 80202
 ATTN: GREG KRAUSE

2

2

RECEIVED
 JAN 26 1983

DIVISION OF
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1

DISTRIBUTION FOR TECHNICAL REPORTS

JS-223-A

COMPANY		WELL	FIELD REPORT NO.
CUSTOMER		FIELD	DATE
COUNTY	STATE		NO.

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LOS ANGELES, CA 90024

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QUANTUM RESOURCES

C/O TRIPET RESOURCES LTD.

401 FINA BLDG. 736-8TH AVE. S.W.

CALGARY, ALBERTA T2P1H4

ATTN: PETER STRACK

2

ANDERSON-MEYERS DRILLING COMPANY

1550 ARAPAHOE ST. SUITE 1150

DENVER, CO 80202

ATTN: RON HARTWELL

1

Well Test Report # 52746 F

— FOR —

RAYMOND T. DUNCAN

Well Name & No.: BRADFORD CANYON UNIT #1-25

County SAN JUAN State UTAH

Test No. 2 Date 01-11-83

Location SEC. 25, T37S R24E

RECEIVED

JAN 26 1983

DIVISION OF
OIL GAS & MINING

**DST
BASIC
DATA
Report**

Johnston-Macco

A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION

DST BASIC DATA REPORT

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- ☒ DST Data Summary

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- ☒ Bottomhole Pressure vs. Time Plot (s)
 - ☒ (J-200) Gauge # J-1117
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
- ☐ Bottomhole Temperature vs. Time Plot (s)
 - ☐ Gauge # _____
 - ☐ Gauge # _____
- ☐ Fluid Fill-up Pressure vs. Time Plot
 - ☐ Gauge # _____
- ☐ Teleflow Data Summary
 - ☐ Initial Flow & Shut-in Periods
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- ☐ Surface Pressure vs. Time Plot

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 - ☒ (J-200) Gauge # J-1117
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
 - ☐ Gauge # _____
- ☐ Fluid Fill-up Pressure vs. Time Data
 - ☐ Gauge # _____
- ☐ TELEFLOW Flow Rate & Surface Pressure vs. Time Data
- ☐ Nomenclature & Units

BACK COVER

JOHNSTON-MACCO

Schlumberger

WESTERN REGION
1745 STOUT SUITE 300
DENVER, COLORADO 80202
(303) 623-0760

JANUARY 21, 1983

INTRODUCTION:

THE DST RUN ON THE LOWER DESERT CREEK FORMATION WAS MECHANICALLY SUCCESSFUL. THERE WAS NO INDICATION OF OIL IN EITHER THE SAMPLE CHAMBER OR THE PIPE RECOVERY. THIS IS NOT NECESSARILY INDICATIVE OF THE FORMATION AS THE RATHOLE VOLUME WAS CALCULATED TO BE APPROXIMATELY .9 BBL AND THE TOTAL RECOVERY WAS .147 BBL. THERE MAY NOT HAVE BEEN ENOUGH FLUID PRODUCED TO ENABLE RESERVOIR FLUID TO REACH THE SAMPLE CHAMBER.

SEQUENCE OF EVENTS:

IT MIGHT HAVE BEEN BETTER TO HAVE USED A SHORTER INITIAL FLOW (3-5 MINUTES) AND FOLLOWED IT WITH A SHUT-IN OF 60-90 MINUTES. THIS MIGHT HAVE ENABLED THE SHUT-IN TO REACH A SEMI-LOG STRAIGHT LINE FOR THE EXTRAPOLATION OF THE RESERVOIR PRESSURE.

THE FINAL SHUT-IN IN THIS CASE WAS ABOUT TWICE AS LONG AS THE FLOW, HOWEVER IN TIGHT ZONES OR IN ZONES WHERE DEEP DAMAGE IS SUSPECTED A SHUT-IN OF 3-4 TIMES THE FLOW WOULD HELP ENSURE USABLE DATA ARE COLLECTED.

Stephen E. Casmus
STEPHEN E. CASMUS
SENIOR SALES ENGINEER
FIELD REPORT #42746 E
TEST #2

Denver Region Office
JOHNSTON-MACCO
A DIVISION OF SCHLUMBERGER
TECHNOLOGY CORPORATION
1745 STOUT, SUITE 300
DENVER, CO 80202
PHONE: (303) 623-0760

California Division Office ... (805) 656-1805
Bakersfield ... (805) 324-6037
Long Beach ... (213) 423-1478
Ventura ... (805) 644-7391

Wyoming Division Office ... (307) 235-4683
Casper Testing, PTS, E/L (307) 266-2832
Gillette ... (307) 682-3292
Powell ... (307) 754-3581
Rock Springs ... (307) 362-3681

Ogden Testing, PTS ... (801) 621-6523
Vernal Testing ... (801) 789-3709
Dickinson Testing ... (701) 225-4451
Williston Testing ... (701) 572-9652

DST DATA SUMMARY

Company RAYMOND T. DUNCANWell BRADFORD CANYON UNIT #1-25County SAN JUANState UTAHDate 01-11-83Test # 2Location SEC. 25, T37S R24E

HOLE	T.D. <u>5465</u> ft		Test Interval <u>5445</u> ft to <u>5465</u> ft	
	Formation <u>LOWER DESERT CREEK</u>		Packer Depths <u>5439, 5445</u> ft	
MUD	Weight <u>12.7</u> lb/gal		Resistivity <u>.38</u> Ω -m @ <u>50</u> °F	
MUD FILTRATE	Chlorides <u>11,500</u> ppm		Nitrates _____ ppm	
	Resistivity <u>.17</u> Ω -m @ <u>50</u> °F			
REPORTED PIPE RECOVERY	Fluid 1. <u>MUD</u>	% Oil _____	Length <u>30</u> ft	Volume <u>.147</u> bbl
	2. _____	_____	_____	_____
	3. _____	_____	_____	_____
	Test Tool 4. _____	_____	_____	_____
		_____	_____	_____
PIPE RECOVERY FLUID PROPERTIES	Fluid 1. Resistivity <u>.53</u> Ω -m @ <u>62</u> °F	Chlorides <u>16K</u> ppm	Nitrates _____ ppm	
	2. _____	_____	_____	
	3. _____	_____	_____	
	Test Tool 4. _____	_____	_____	
		_____	_____	
	Oil Gravity _____		°API @ _____ °F	
SAMPLE¹ CHAMBER RECOVERY	Fluid 1. Gas <u>X</u>	Volume <u>.04</u> ft ³	Pressure <u>400</u> psig	
	2. Oil _____	_____ cc	GOR _____ scf/bbl	
	3. <u>MUD</u>	<u>400</u> CC	GLR _____ scf/bbl	
	4. _____	_____	Oil Gravity _____ °API @ _____ °F	
		_____	_____	
BOTTOMHOLE PRESSURE	Period 1. Initial Flow _____	Duration <u>8.80</u> min	Pressures <u>60</u> psia to <u>59</u> psia	
	2. Initial Shut-in _____	<u>31.84</u>	<u>59</u>	<u>530</u>
	3. Final Flow _____	<u>54.86</u>	<u>43</u>	<u>40</u>
	4. Final Shut-in _____	<u>125.25</u>	<u>40</u>	<u>3109</u>
	5. _____	_____	_____	_____
	6. _____	_____	_____	_____
	Initial Hydrostatic <u>3657</u> psia		Final Hydrostatic <u>3652</u> psia	
	BHT <u>129</u> °F			
	Gauge <u>J-1117</u>			
	Depth <u>5451</u> ft			

¹Gas Volume is Corrected to Final Flowing Pressure 40 psia

& Reservoir Temperature 129 °F

DST EVENT SUMMARY

Field Report # 42746 E

DATE (M/D/Y)	TIME (HR:MIN)	EVENT ET. (MIN)	EVENT DESCRIPTION	LABEL POINTS	SURFACE PRESSURE (PSIG)	FLOOR MANIFOLD CHOKE SIZE (64ths INCH)
1/11/83	1234	—	SET PACKER	1	—	—
	1235	—	OPENED TEST TOOL FOR INITIAL FLOW	2	WEAK BLOW	
			(OPENED) TO BUBBLE HOSE AT SURFACE)			
	1245				1 LB.	1/8 IN.
	1250	—	CLOSED TEST TOOL FOR INITIAL SHUT-IN	3	1	
	1320		FINISHED INITIAL SHUT-IN	4		
	1321	—	OPENED TEST TOOL FOR FINAL FLOW	5		
			BLOW TO BOTTOM OF BUCKET			
	1322				1.75	
	1323				1.75	
	1325				1.75	
	1330				1.5	
	1335				1.5	
	1340				1.25	
	1345				1.25	
	1350				1.25	
	1355				1.25	
	1400				1.1	
	1405				1	
	1415				20 OZ.	
	1420				19	
	1421		CLOSED TEST TOOL FOR FINAL SHUT-IN	6		
	1621	—	FINISHED FINAL SHUT-IN	7		
	1622	—	UNSEATED PACKER	8		
		—	REVERSED OUT			
		—	BEGAN TRIP OUT OF HOLE			

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 42746E

COMPANY : RAYMOND T. DUNCAN

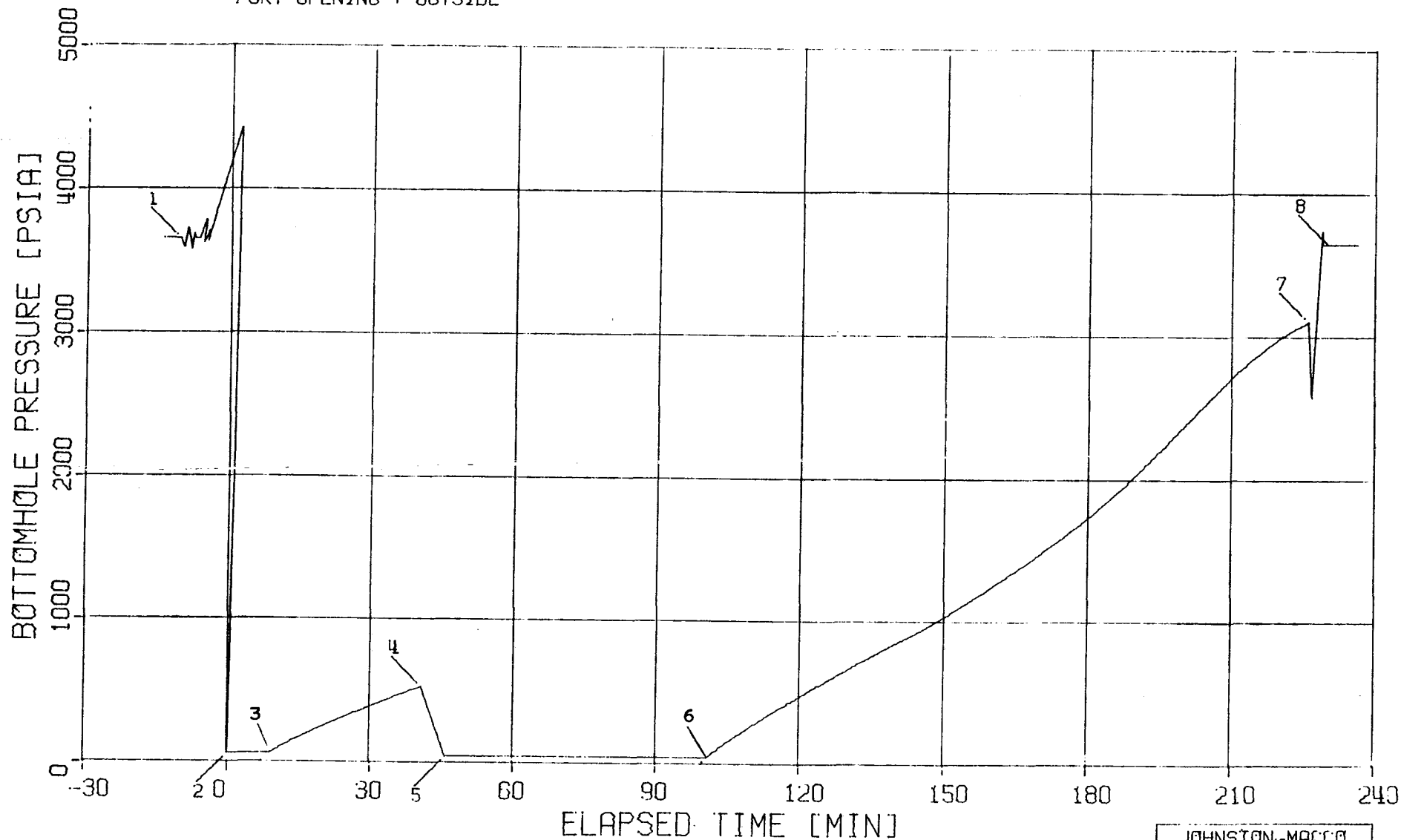
INSTRUMENT NO. J-1117

WELL : BRADFORD CANYON UNIT #1-25

DEPTH : 5451 FT

CAPACITY : 4700 PSI

PORT OPENING : OUTSIDE



JOHNSTON-MACCO
SCHLUMBERGER

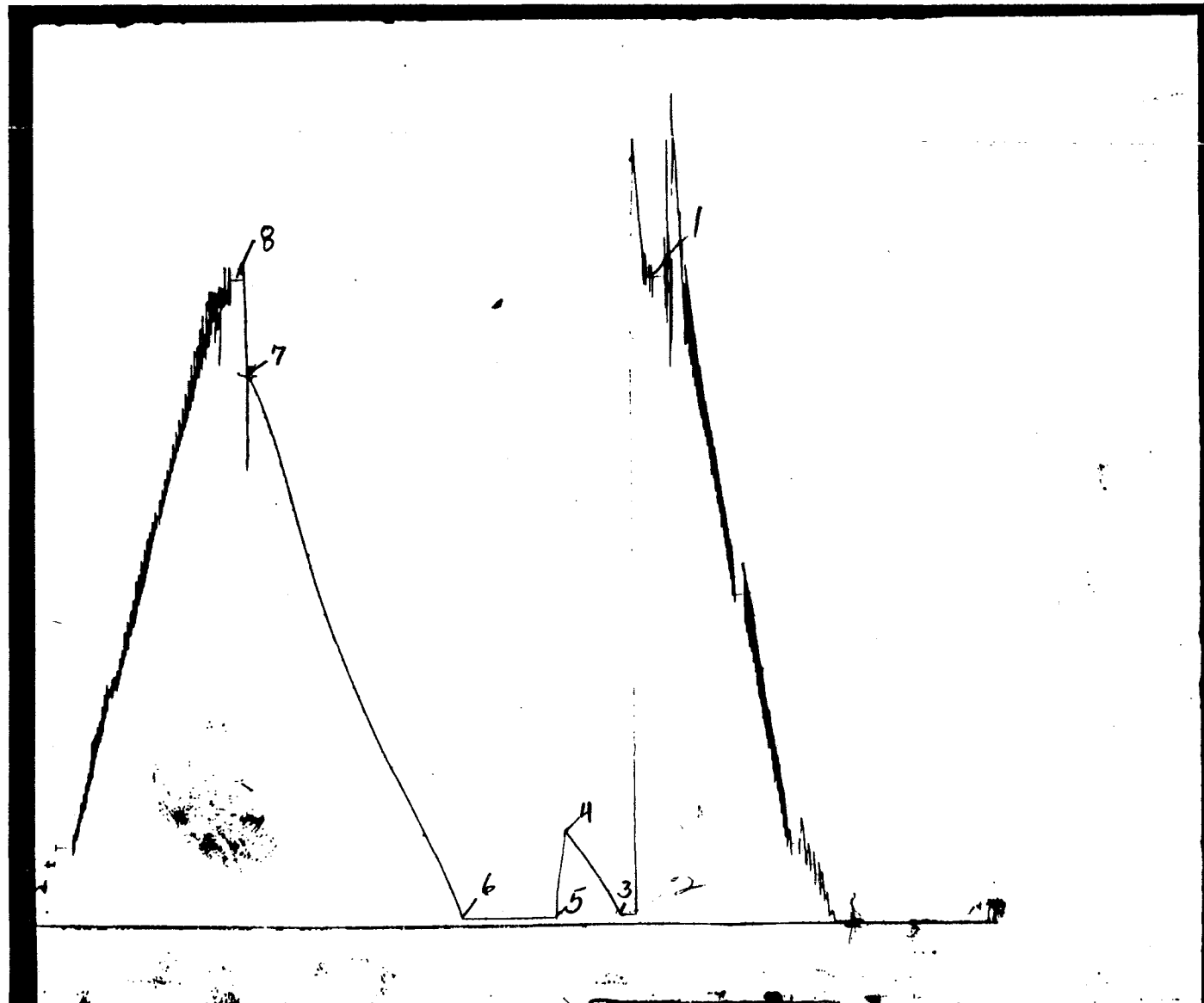
FIELD REPORT NO.: 42746 E

CAPACITY: 4700

JOHNSTON-MACCO
Schlumberger

INSTRUMENT NO.: J-1117

NUMBER OF REPORTS: 19



DST EQUIPMENT CONFIGURATION

Field Report # 42746 E

		COMPONENT	OD (IN)	ID (IN)	LENGTH (FT)	DEPTH (FT)	
SURFACE		FLARE (PIT) LINE				.	
		FLOOR MANIFOLD	—	—	—	—	
		FLOW HOSE				—	
						—	
						—	
		CONTROL HEAD				—	
		DRILL PIPE ABOVE ROTARY TABLE				R.T.	
DRILL PIPE & COLLARS		DRILL PIPE	4.50	3.83			
		DRILL COLLARS	4.50	2.25	546		
		REVERSE CIRCULATING SUB					
		DRILL COLLARS	4.50	2.25	91		
TEST TOOL STRING		X-OVER					
		MFE - BYPASS					
		RECORDER (J-299)				5408	
		RECORDER (J-503)				5416	
		JAR					
		SAFETY JOINT					
		SAFETY SEAL					
		PACKER				5439	
		PACKER				5445	
		PERFORATION					
		RECORDER (J-1117)				5451	
		PERFORATION					
		BULL PLUG					
			CUSHION TYPE	LENGTH (FT)		SURFACE PRESSURE (PSIG)	TOTAL PRESSURE AT TEST TOOL (PSIG)
		NONE					
INTERVAL	Type	MFE - OPEN HOLE		PRESS	Size	_____ in Density _____ spf	
	Size	7 7/8			Gun	_____ Total _____ shots	
	Weight	_____ lb/ft			Interval(s)	_____ ft	

 * WELL TEST DATA PRINTOUT *

FIELD REPORT # : 42746E

COMPANY : RAYMOND T. DUNCAN

WELL : BRADFORD CANYON UNIT #1-25

INSTRUMENT # : J-1117

CAPACITY [PSI] : 4700.

DEPTH [FT] : 5451.0

PORT OPENING : OUTSIDE

TEMPERATURE [DEG F] : 129.0

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA
1	12:24:13	11-JA	HYDROSTATIC MUD	0.79	3657
2	12:35:00	11-JA	START FLOW	0.00	60
3	12:43:48	11-JA	END FLOW & START SHUT-IN	8.80	59
4	13:15:38	11-JA	END SHUT-IN	40.64	530
5	13:20:53	11-JA	START FLOW	45.89	43
6	14:15:45	11-JA	END FLOW & START SHUT-IN	100.75	40
7	16:21:00	11-JA	END SHUT-IN	226.00	3109
8	16:24:49	11-JA	HYDROSTATIC MUD	229.82	3652

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	8.80	8.80	60	59
2	45.89	100.75	54.86	43	40

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	8.80	40.64	31.84	59	530	59	8.80
2	100.75	226.00	125.25	40	3109	40	63.66

TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM	TIME, MIN	TIME, MIN	PSIA
*****	*****	*****	*****	*****
12:35: 0	11-JA	0.00	0.00	60
12:40: 0	11-JA	5.00	5.00	59
12:43:48	11-JA	8.80	8.80	59

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 59
PRODUCING TIME [MIN] = 8.80

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELT PS	P	LOG HORNER TIME
HH:MM:SS	DD-MM	TIME, MIN	TIME, MIN	PSIA	PS		TIME
*****	*****	*****	*****	*****	*****	*****	*****
12:43:48	11-JA	8.80	0.00	59		0	
12:44:48	11-JA	9.80	1.00	78		19	0.991
12:45:48	11-JA	10.80	2.00	97		38	0.732
12:46:48	11-JA	11.80	3.00	116		57	0.595
12:47:48	11-JA	12.80	4.00	132		73	0.505
12:48:48	11-JA	13.80	5.00	151		92	0.441
12:49:48	11-JA	14.80	6.00	166		07	0.397
12:50:48	11-JA	15.80	7.00	183		24	0.354
12:51:48	11-JA	16.80	8.00	199		40	0.322
12:52:48	11-JA	17.80	9.00	216		56	0.296
12:53:48	11-JA	18.80	10.00	232		73	0.274
12:55:48	11-JA	20.80	12.00	262		03	0.239
12:57:48	11-JA	22.80	14.00	291		32	0.212
12:59:48	11-JA	24.80	16.00	320		61	0.190
13: 1:48	11-JA	26.80	18.00	349		90	0.173
13: 3:48	11-JA	28.80	20.00	375		15	0.158
13: 5:48	11-JA	30.80	22.00	403		44	0.146
13: 7:48	11-JA	32.80	24.00	429		70	0.136
13: 9:48	11-JA	34.80	26.00	455		96	0.127
13:11:48	11-JA	36.80	28.00	481		22	0.119
13:13:48	11-JA	38.80	30.00	506		47	0.112
13:15:38	11-JA	40.64	31.84	530		71	0.106

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM	TIME, MIN	TIME, MIN	PSIA
*****	*****	*****	*****	*****
13:20:53	11-JA	45.89	0.00	43
13:25:53	11-JA	50.89	5.00	43
13:30:53	11-JA	55.89	10.00	42
13:35:53	11-JA	60.89	15.00	41
13:40:53	11-JA	65.89	20.00	41
13:45:53	11-JA	70.89	25.00	41
13:50:53	11-JA	75.89	30.00	41
13:55:53	11-JA	80.89	35.00	40
14: 0:53	11-JA	85.89	40.00	39
14: 5:53	11-JA	90.89	45.00	39
14:10:53	11-JA	95.89	50.00	39
14:15:45	11-JA	100.75	54.86	40

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 40

PRODUCING TIME [MIN] = 63.66

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELT PS	F	LOG HORNER TIME
HH:MM:SS	DD-MM	TIME, MIN	TIME, MIN	PSIA	PS		
*****	*****	*****	*****	*****	*****	***	*****
14:15:45	11-JA	100.75	0.00	40		0	
14:16:45	11-JA	101.75	1.00	70		30	1.811
14:17:45	11-JA	102.75	2.00	92		52	1.516
14:18:45	11-JA	103.75	3.00	120		79	1.347
14:19:45	11-JA	104.75	4.00	145		05	1.228
14:20:45	11-JA	105.75	5.00	167		27	1.138
14:21:45	11-JA	106.75	6.00	191		50	1.065
14:22:45	11-JA	107.75	7.00	211		71	1.004
14:23:45	11-JA	108.75	8.00	235		94	0.952
14:24:45	11-JA	109.75	9.00	260		20	0.907
14:25:45	11-JA	110.75	10.00	278		38	0.867
14:27:45	11-JA	112.75	12.00	323		83	0.800
14:29:45	11-JA	114.75	14.00	364		24	0.744
14:31:45	11-JA	116.75	16.00	402		62	0.697
14:33:45	11-JA	118.75	18.00	443		03	0.657
14:35:45	11-JA	120.75	20.00	483		43	0.621
14:37:45	11-JA	122.75	22.00	526		86	0.590
14:39:45	11-JA	124.75	24.00	561		21	0.563
14:41:45	11-JA	126.75	26.00	601		61	0.538
14:43:45	11-JA	128.75	28.00	638		98	0.515
14:45:45	11-JA	130.75	30.00	677		37	0.494
14:50:45	11-JA	135.75	35.00	770		30	0.450
14:55:45	11-JA	140.75	40.00	858		18	0.414
15: 0:45	11-JA	145.75	45.00	949		09	0.383
15: 5:45	11-JA	150.75	50.00	1049	1	09	0.357
15:10:45	11-JA	155.75	55.00	1157	1	17	0.334

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 40

PRODUCING TIME [MIN] = 63.66

TIME OF DAY	DATE	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELT PS	P	LOG HORNER TIME
HH:MM:SS	DD-MM						
*****	*****	*****	*****	*****	*****	***	*****
15:15:45	11-JA	160.75	60.00	1268	1	27	0.314
15:20:45	11-JA	165.75	65.00	1381	1	41	0.297
15:25:45	11-JA	170.75	70.00	1501	1	60	0.281
15:30:45	11-JA	175.75	75.00	1626	1	86	0.267
15:35:45	11-JA	180.75	80.00	1757	1	17	0.254
15:40:45	11-JA	185.75	85.00	1904	1	64	0.243
15:45:45	11-JA	190.75	90.00	2063	2	23	0.232
15:50:45	11-JA	195.75	95.00	2228	2	88	0.223
15:55:45	11-JA	200.75	100.00	2407	2	67	0.214
16: 0:45	11-JA	205.75	105.00	2581	2	41	0.206
16: 5:45	11-JA	210.75	110.00	2745	2	05	0.198
16:10:45	11-JA	215.75	115.00	2885	2	45	0.191
16:15:45	11-JA	220.75	120.00	3011	2	71	0.185
16:20:45	11-JA	225.75	125.00	3104	3	64	0.179
16:21: 0	11-JA	226.00	125.25	3109	3	68	0.178

RAYMOND T. DUNCAN
NO. 1-25 BRADFORD CANYON UNIT
SE NW SECTION 25, T37S, R24E
SAN JUAN COUNTY, UTAH

WELLSITE GEOLOGIST: Jim Holst
Intermountain Wellsite Geologists
P.O. Box 4007
Casper, Wyoming 82604
(307) 266-2009

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RECEIVED
FEB 22 1983

DIVISION OF
OIL GAS & MINING

WELL DATA

OPERATOR:

Raymond T. Duncan
1777 South Harrison
Penthouse No. 1
Denver, Colorado 80210
(303) 759-3303

OTHER INTERESTED
PARTIES:

Tricentrol
5675 South Tamarac Parkway
Gateway Place No. 200
Englewood, Colorado 80111
(303) 694-0988

MCOR Oil and Gas Corporation
10880 Wilshire Blvd.
Los Angeles, California 90024
(213) 879-5252

Sante Fe Energy
2600 Security Life Building
Denver, Colorado 80202
(303) 825-5101

Diamond Shamrock
410 17th Street, No. 600
Denver, Colorado 80202
(303) 575-0255

Marathon Oil Company
P.O. Box 2659
Casper, Wyoming 82602
(307) 577-1555

Dorchester Exploration
1675 Larimer Street, No. 600
Denver, Colorado 80202
(303) 571-1817

Quantum Resources, Inc.
C/O Tripet Resources Ltd.
401 Fina Building
736 8th Avenue SW
Calgary, Alberta T2P1H4
(403) 261-0651

Anderson-Meyers Drilling Company
1550 Arapahoe St. Suite no. 1150
Denver, Colorado 80202
(303) 623-5600

WELL NAME: No. 1-25 Bradford Canyon Unit

LOCATION: SE NW Section 25, T37S, R24E
2095' FNL, 1885' FWL
San Juan County, Utah

FIELD: Undesignated

GROUND LEVEL ELEVATION: 4980 Feet

KELLY BUSHING ELEVATION: 4993 Feet

GEOLOGIST: Jim Holst
Intermountain Wellsite Geologists
P.O. Box 4007
Casper, Wyoming 82604
(307) 266-2009

MUDLOGGING: Analex
910 16th Street # 524
Denver, Colorado 80202
One man logging service
Logger- Scott George

SPUD DATE: December 28, 1982 (11:00a.m.)

CEASED DRILLING: January 12, 1983 (6:30a.m.)

CONTRACTOR: Arapahoe Drilling Company
Rig Number 11
P.O. Box 2078
Farmington, New Mexico 87401
(505) 325-5018

TOOL PUSHERS: Albert Frank
Ed Brown

DRILLERS: P. Gallegos
D.J. Lenocker
G. Davis
J. Lee

COMPANY MAN: J.A. "Arkie" Browning
P.O. Box 1058
Cortez, Colorado 81321
(303) 565-8806; Mobile 565-5000

RIG EQUIPMENT: Drawworks - National T-32
Derrick - 126 FT.; 8 lines
Pump No. 1 - Ideal C-250
Pump No. 2 - Ideal C-150
Drill Pipe - 4½ inch; 4 IF (x-hole)
Drill Collars - 6 1/16 inch; 4½ IF (x-hole)

DRILLING FLUIDS: Drilling Mud Inc.
 P.O. Box 1179
 Cortez, Colorado 81321
 (303) 565-6244
 Engineer - Don Bryant
 Mud Type - Fresh Water Gel, Chemical

SURFACE CASING: Driller - 126 ft. 13 3/8 inch (conductor)
 2500 ft. 8 5/8 inch
 E. Logger - 2498 ft.

TOTAL DEPTH: Driller - 5536 ft; SIM - 5532 ft.
 E. Logger - 5532 ft.

BOTTOM HOLE TEMPERATURE: E. Log - 119°F, DST - 129°F

SAMPLES: 30 Ft.- Surface to 2500 ft.
 10 Ft.- 2500 Ft. to Total Depth
 Wet cuts sent to Amstrat, Denver, Colorado.
 10 ft. samples (dry cuts) sent to Raymond
 T. Duncan in Denver; Show samples also sent
 to Duncan in Denver.

CORES: No cores cut

DRILL STEM TEST NO. 1: Upper Ismay, 5177 feet to 5207 feet (30 ft.
 test); Johnston-Macco, tester Keith Koerner.
 Depth corrected to 5173'-5203'.

DRILL STEM TEST NO. 2: Lower Desert Creek, 5445 feet to 5465 feet
 (20 ft. test); Johnston-Macco, tester Keith
 Koerner. Depth corrected to 5441'-5461'.

ELECTRICAL LOGS: Schlumberger
 Farmington, New Mexico
 (505) 325-5006
 Engineer - George Bain

ELECTRICAL LOGS RUN: DLL with GR and CAL and MSFL base of surface
 casing to total depth; FDC/CNL with GR and CAL
 base of surface to total depth; BHC sonic with
 GR and CAL base of surface casing to total
 depth; cyberlook 4000 ft. to total depth.

CHRONOLOGY

December 28, 1982 Drilling rat hole and mouse hole. Spud at 11:00 a.m. Drilling 12 1/4 inch surface hole from 0 to 125 feet. Ream to a 17 1/4 inch hole.

December 29, 1982 Finish reaming to 17 1/4 inch hole. Ran 3 joints 13 3/8 inch, 48.00 LB conductor casing, a total of 128 feet set at 126 feet K.B. Cement with 200 sacks class "B" neat with 3% CaCl_2 . Circulation with good returns. Plug down at 9:00 a.m. nipple up, wait on cement. Drilled cement, drilled out from under conductor pipe at 9:00 p.m. Drilling 12 1/4 inch hole from 126 feet to 155 feet. Drilling ahead.

December 30, 1982 Drilled from 155 feet to 1307 feet. Drilling ahead.

December 31, 1982 Drilled from 155 feet to 1307 feet to 1522 feet. Trip for new bit # 5A (HTC) J-11. Drilled from 1522 feet to 2028 feet. Drilling ahead.

January 1, 1983 Drilled from 2088 feet to 2068 feet. Trip for new bit # 6A (STC) SDGH. Drilled from 2068 feet to 2264 feet. Trip for new bit # 7A (STC) F-2. Drilled from 2264 feet to 2362 feet. Drilling ahead.

January 2, 1983 Drilled from 2364 feet to 2500 feet. Circulate to run casing. Ran 58 joints 8 5/8 inch 24.0 lb. casing, total 2506 feet, set at 2500 feet. Cement with 1350 sacks B-J lite with 1/4 lb/sack celoflake, followed by 200 sacks class "B" neat with 2% CaCl_2 . Plug down at 3:00 p.m. Left 40 sacks cement in 8 5/8 inch casing.

January 3, 1983 Wait on cement, nipple up, pressure test B.O.P. to 3000 lbs. Drilling cement, top of the plug at 1903 feet to 2500 feet - drilled 597 feet of cement. Drilled out from under surface casing. Drilling 7 7/8 inch hole from 2500 feet to 2540 feet. Trip for new bit # 9 (HTC) J-22. Drilled from 2540 feet to 3029 feet. Drilling ahead.

January 4, 1983 Drilled from 3029 feet to 3635 feet. Trip for new bit # 10 (HTC) J-33.

January 5, 1983 Finish tripping for bit # 10. Ream 40 feet to bottom. Drilled from 3635 feet to 4101 feet. Drilling ahead. Geologist and mudlogger on location.

January 6, 1983 Drilled from 4101 feet to 4552 feet. Drilling ahead.

January 7, 1983 Drilled from 4552 feet to 4957 feet. Drilling ahead.

January 8, 1983 Drilled from 4957 feet to 5207 feet. Circulate and condition hole for drill stem test No. 1 (Upper Ismay) 5177' to 5207'.

January 9, 1983 Trip out of hole for DST # 1. Pick up test tool. Trip tool into hole. Run DST # 1 (Upper Ismay). Test was successful. Trip out of hole with test tool. Lay down test tool. Trip into hole with new bit # 11 (Smith) F-3. Drilled from 5207 feet to 5315 feet. Drilling ahead.

January 10, 1983 Drilled from 5315 feet to 5456 feet. Circulate up samples. Circulate for drill stem test #2 (Lower Desert Creek). Short, 10 stand, trip. Trip out of hole for DST # 2.

January 11, 1983 Trip out of hole. Pick up test tool. Trip in 26 stands, wait on daylight. Trip into hole, tight through the Ismay. Run DST # 2. Tool failed to open. Trip out of hole. Replace testing tools. Trip into hole. Run DST # 2. Trip out of hole. Lay down test tools. Trip into hole with new bit #12 (HTC) J-33. Drilled from 5465 feet to 5480 feet. Drilling ahead.

January 12, 1983 Drilled from 5480 feet to 5536 feet. Drilled to total depth. Circulate to run electrical logs. Run E-logs.

January 13, 1983 Finish electrical logs, wait on orders. Decided to plug and abandon location. Geologist released.

DAILY DRILLING SUMMARY

[illegible]

BIT RECORD

<u>BIT NUMBER</u>	<u>SIZE</u>	<u>MAKE</u>	<u>TYPE</u>	<u>DEPTH OUT</u>	<u>FEET OUT</u>	<u>HOURS</u>	<u>AVG FT/HR</u>
1A	12 1/4	STC	F-2	125	125	9	13.9
2A	17 1/4	STC	hole opener	84	84	5 1/2	15.3
3A	17 1/4	STC	hole opener	125	41	3 1/4	12.6
4A	12 1/4	STC	F-2	1522	1397	35 1/4	39.6
5A	12 1/4	HTC	J-11	2068	546	16 1/2	33.1
6A	12 1/4	STC	SDGH	2264	196	11 1/2	17.0
7A	12 1/4	STC	F-2	2500	236	9 3/4	24.2
8	7 7/8	HTC	J-22	2540	40	1 3/4	22.9
9	7 7/8	HTC	J-22	3635	1095	33 1/2	32.7
10	7 7/8	HTC	J-33H	5207	1572	85 1/2	18.4
11	7 7/8	STC	F-3	5465	258	22	11.7
12	7 7/8	HTC	J-33	5536	71	8 1/2	8.4

DEVIATION RECORD

<u>DATE</u>	<u>DEPTH</u>	<u>DEGREES DEV.</u>
12/29	125'	1/8°
12/30	784'	1°
12/30	1307'	1°
12/31	1522'	1°
1/1	2068'	1°
1/2	2500'	3/4°
1/4	3048'	3/4°
1/4	3574'	1°
1/4	3635'	1°
1/6	4132'	1°
1/7	4635'	3/4°
1/8	5207'	1/2°
1/12	5536'	3/4°

FORMATION TOPS

(K.B. = 4993 Ft.)

<u>FORMATION</u>	<u>SAMPLE TOP</u>	<u>E. LOG TOP</u>	<u>SUBSEA</u>
Pennsylvanian			
Hermosa	4106	4085	+908
Upper Ismay	5136	5139	-146
Lower Ismay	5319	5309	-316
Gothic Shale	5369	5361	-368
Desert Creek	5391	5387	-394
Lower Desert Creek	5459	5452	-459
Chimney Rock	5485	5471	-478
Total depth	5536	5532	-539

E-LOG COMPARISONS

Raymond T. Duncan
No. 1-25 Bradford
Canyon Unit
SE NW Sec. 25
T37S, R24E
San Juan Co., Utah
GL Elev: 4980'
KB Elev: 4993'

Raymond T. Duncan
No. 1-23 Bradford
Canyon Unit
NE SW Sec. 23
T37S, R24E
San Juan co., Utah
GL Elev: 5011'
KB Elev: 5026'

Tricentrol
No. 1-3 Nancy Fed.
NE NW Sec. 3
T38S, R25E
San Juan Co., Utah
GL Elev: 5388'
KB ELEV: 5403'

<u>FORMATION</u>	<u>SUBSEA DEPTH</u>	<u>SUBSEA DEPTH</u>	<u>SUBSEA DEPTH</u>
Pennsylvanian			
Hermosa	+903	+951	
Upper Ismay	-146	-87	-56
Lower Ismay	-316	-269	-245
Gothic Shale	-368	-321	-299
Desert Creek	-394	-343	-317
Lower Desert Creet	-459	-405	-375
Chimney Rock	-478	-446	-417
Total Depth	-539	-524	-435

LOG CALCUALTIONS

<u>FORMATION</u>	<u>DEPTH</u>	<u>φ N</u>	<u>φ D</u>	<u>φ S</u>	<u>Ave. φ</u>	<u>F</u> <u>($\frac{1}{\phi^2}$)</u>	<u>Rt</u>	<u>Rwa</u> <u>($\frac{Rt}{F}$)</u>	<u>Rw</u>	<u>Ro</u> <u>FRw</u>	<u>Sw</u> <u>%</u>
Permian											
Hermosa	4414	.23	.21	.19	.21	22.7	6	.264	.15	3.4	75
	4418	.18	.19	.22	.196	26	4.5	.17	.15	3.9	93
	4422	.20	.21	.22	.21	22.7	4	.18	.15	3.4	92
	4428	.19	.20	.22	.203	24.3	4	.16	.15	3.6	96
	4736	.14	.17	.16	.157	40.6	20	.49	.15	6.1	55
	4745	.20	.16	.15	.17	34.6	35	1.01	.15	5.2	39
Pennsylvanian											
Ismay	5189	.23	.115	.95	.147	46.3	6	.13	.035	1.62	52
	5292	.21	.13	.04	.127	62	15	.24	.035	2.17	38
	5196	.28	.18	.13	.197	25.8	2.5	.01	.035	.903	60
	5213	.08	.06	.05	.063	252	90	.36	.035	8.82	31
	5222	.21	.11	.95	.138	52.5	95	1.8	.035	1.84	14
	5259	.14	.07	.08	.097	106.3	12	.11	.035	3.72	56
Desert Creek	5398	.19	.05	.135	.125	64	15	.23	.035	2.24	39
Lower Desert Creek	5455	.23	.13	.155	.172	33.8	3.5	.10	.035	1.18	58
	5457	.29	.19	.13	.203	24.3	7	.28	.035	.85	35
	5460	.16	.05	.85	.098	104	6	.058	.035	3.64	78

LOG CALCULATIONS-CONTINUED

COMMENTS: The calculated values always assumed a constant bulk fluid density of 1.0 gm/cc. A limestone matrix was used on CNP and a grain density of 2.71 was used on FDC. A resistivity value of 0.15 was calculated for the Hermosa and a value of 0.035 was used for all calculations for the Ismay and Desert Creek.

DRILL STEM TEST DATA

DRILL STEM TEST NO. 1: 5177 ft. to 5207 ft.; 30 ft. test; Upper Ismay Formation (Corrected depth: 5173'-5203')

TYPE: Bottom Hole Conventional with no water cushion

FLOW AND SHUT IN DESCRIPTIONS:

IF - 15 Minutes - Open with weak blow increasing to 1½ oz. in 1 minute, 2½ oz. in 2 minutes, 6 oz. in three minutes, 8 oz. in 5 minutes, 10 oz. in 10 minutes, 12 oz. in 15 minutes. No gas to surface.

ISI - 30 Minutes - Surface action died.

FF - 60 Minutes - Open with good blow 5½ oz. to bottom of bucket immediately, 2¼ lbs. in 1 minute on 1/8" surface choke, 3½ lbs. in 5 minutes, 4 lbs. in 10 minutes, 5 lbs. in 15 minutes, 6 lbs. in 30 minutes, 6½ lbs. in 45 minutes. No gas to surface.

FSI - 120 Minutes - Gas to surface in 18 minutes (123 minutes total time into the test). Action slowly died.

RECORDER FIELD PRESSURES:

	<u>Inside (Bottom) Recorder</u>	<u>Outside (Top) Recorder</u>
Location (depth)	5183	5189
IH	2909	2908
IF	66-103	37-75
ISI	2045	2042
FF	103-216	84-187
FSI	2224	2211
FH	2871	2832
Bottom Hole Temp.	126°F	127°F

RECOVERY: Drill Pipe - 184' (.902 Barrels) Gas Cut Mud; 182' (.892 Barrels) Mud Cut Salt Water; total recovery - 366'.

Sample Chamber - 0.31 cu ft. gas; 1625 cc salt water; total fluid - 1625 cc at 160 psi.

RESISTIVITIES:

DRILL PIPE: Top - gas cut mud, 0.41 @ 68°F, 14,000 ppm Cl; Bottom - mud cut water, 0.16 @ 68°F, 51,000 ppm Cl.

SAMPLE CHAMBER: Salt water; 0.04 @ 66°F, 53,000 ppm Cl.

PIT MUD: 0.44 @ 46°F (Pit Mud Filtrate - 0.42 @ 44°F, 12,000 PPM)

DRILL STEM TEST NO. 1 (continued)

OBSERVATIONS AND COMMENTS: Drill Stem Test No. 1 was a successful test. The packers set and held, no mechanical failure was indicated on the test tools, no fluid was lost down hole, and the packers pulled loose easily.

The results of this drill stem test on the Ismay indicates a tight, low permeability water wet zone. The upper portion of the zone may contain enough hydrocarbons to make a small well; the lower zone tested is probably wet.

DRILL STEM TEST DATA

DRILL STEM TEST NO. 2: 5445 ft. to 5465 ft.; 20 ft. test; Lower Desert Creek Formation (Corrected depth 5441'- 5461')

TYPE: Bottom Hole Conventional with no water cushion

FLOW AND SHUT IN DESCRIPTIONS:

IF - 15 Minutes - Open with weak blow bottom of bucket in 1 minute, 1 lb. on 1/8" choke in 10 minutes, 1 lb. in 15 minutes.

ISI - 30 Minutes - Surface action died.

FF - 60 Minutes - Open with strong blow bottom of bucket in 1 minute, 1.75 lb. on 1/8" surface choke in 2 minutes, decreased to 1.5 lb. in 10 minutes, 1.25 lb. in 20 minutes, 1 lb. in 45 minutes, 20 oz. in 55 minutes.

FSI - 120 Minutes - Surface action died.

RECORDER FIELD PRESSURES:

	<u>Inside (Top) Recorder</u>	<u>Outside (Bottom) Recorder</u>
Location (depth)	5416	5451
IH	3631	3651
IF	37-37	37-37
ISI	507	517
FF	28-28	37-37
FSI	3087	3086
FH	3622	3651
Bottom Hole Temp.	128°F	129°F

RECOVERY: Drill Pipe - 30' (.147 barrels) Mud W/oil odor

Sample Chamber - 0.04 cu ft. gas; 400 cc heavy mud W/oil odor; total fluid - 400 cc at 19.5 psi.

RESISTIVITIES:

DRILL PIPE: Heavy mud; 0.58 @ 62°F, 16,000 ppm Cl.

SAMPLE CHAMBER: Heavy mud; sent to a chemical lab.

PIT MUD: 0.38 @ 50°F (Pit Mud Filtrate - 0.17 @ 50°F; 11,500 ppm Cl)

OBSERVATIONS AND COMMENTS: Drill Stem Test No. 2 was a successful test. The packers set and no fluid was lost down hole. No mechanical failure was indicated on the test tool. The packers pulled loose easily and no problems were encountered while tripping out and dismantling the test tool.

As a result of this drill stem test, the Desert Creek at this location appears to have hydrocarbons but with extremely low permeability. These hydrocarbons will not flow. From the charts it was also noted that on the final shut-in the gas went back into solution, confirming very low permeability.

SAMPLE DESCRIPTIONS

- 4000-4070 Shale - Red, dark brown, medium gray, dark reddish brown, blocky, soft to scattered moderately firm, silty, slightly micaceous in part, calcareous to slightly calcareous with interbedded siltstone - red, blocky, slightly shaly in part, calcareous, soft to moderately firm, scattered slightly sandy in part, traces of scattered sandstone - green, light to medium gray, slightly micaceous, angular to subangular, poor to slightly moderate sorting, calcareous, clay filled, tight, traces of scattered limestone - dark brown, brown, cryptocrystalline, dense, no visible porosity.
- 4070-4090 Limestone - Light to scattered dark brown, light to medium gray, dense, cryptocrystalline, no visible porosity, no stain, predominately shale - medium gray, red, dark red, dark brown, silty, blocky, soft, slightly micaceous, calcareous to slightly calcareous.
- 4090-4100 Shale - Medium to dark gray, red, dark red, dark brown, blocky to platy in part, soft, slightly calcareous, sandstone - light to medium gray, light green, white to clear, subangular to angular, fine to medium grained, poor to moderately sorted, calcareous, clay filled, trace pyrite.
- 4100-4120 Limestone - Light to dark gray white, abundant pelletoidal scattered oolitic fossils, dense, cryptocrystalline to microcrystalline, no visible porosity, no stain, no cut.
- 4120-4140 Limestone - Light to medium gray, light to medium brown, white, cryptocrystalline, dense, no visible porosity, no stain.
- 4140-4160 Sandstone - White, light gray, very fine grained, subangular, well sorted to moderately sorted, calcareous. Limestone - Light to medium gray, light to medium brown, cryptocrystalline, dense. Shale - Red, dark brown, medium to dark gray, blocky, silty in part.
- 4160-4190 Sandstone - Light green, light gray to greenish gray, very fine grained, limy in part, hard, dense, slightly dolomitic in part, subangular, well sorted. Limestone - Brown, light brown, white, light to medium gray, cryptocrystalline, dense, no visible porosity. Shale - Gray, scattered dark gray, red, dark red, dark brown, blocky, silty in part, calcareous to slightly calcareous.
- 4180-4190 Limestone - Light to medium brown, light to medium gray white, dense, cryptocrystalline, no visible porosity, no stain, no cut, scattered Sandstone - White, light green, light gray, light greenish-gray, subangular, well sorted, predominately very fine grained, scattered medium grained, calcareous to slightly limy in part.

- 4190-4200 Limestone - Dark brown, dark gray, dense, hard, cryptocrystalline, abundant chert.
- 4200-4220 Limestone - White, light gray, light brown, cryptocrystalline to slightly fragmental, dense, no stain, no visible porosity.
- 4220-4240 Sandstone - Light green, light gray, greenish gray, predominately very fine grained, tight, dense, soft to moderately firm, calcareous to limy in part. Shale - Dark brown, reddish brown, dark red, medium to dark gray, blocky, slightly calcareous, scattered silty in part, scattered Limestone - Brown, dark brown, medium gray, cryptocrystalline, dense, no visible porosity.
- 4240-4340 No Samples
- 4340-4350 Shale - Dark reddish brown, medium to dark gray, blocky, silty in part, slightly calcareous to calcareous. Limestone - Dark brown, scattered light brown, light to medium gray, dense, cryptocrystalline, no visible porosity, no stain.
- 4350-4360 Limestone - Light to medium gray, light to medium brown, brownish-gray, cryptocrystalline, dense, no visible porosity, scattered pyrite.
- 4360-4440 Shale - Red, dark red, dark reddish-brown, medium to dark gray, blocky to scattered platy, slightly calcareous, scattered slightly limy in part. Limestone - Brown, light brownish gray, cryptocrystalline, dense, no visible porosity. Sandstone - Green, gray, light greenish gray, micaceous, fine to medium grained, scattered coarse grained, subangular to angular, calcareous.
- 4440-4460 Limestone - Brown, gray, light brownish-gray, cryptocrystalline, dense, no visible porosity, no stain, no cut. Shale - Dark brown, brown, gray, dark gray, dark reddish brown, blocky, silty in part, slightly calcareous. Sandstone - Light green, light gray, greenish gray, white, very fine grained to scattered medium grained, subangular to scattered angular, predominately poorly sorted, scattered well sorted, micaceous, calcareous.
- 4460-4500 Limestone - Light to medium brown, cream, light gray, light grayish brown, cryptocrystalline, scattered fragmental in part, dense, no visible porosity, no stain, scattered fossils. Shale - Dark brown, medium to dark gray, blocky, silty in part, slightly calcareous, scattered slightly limy in part.
- 4500-4540 Shale - Dark brown, medium to dark gray, dark red, micaceous in part, scattered silty, soft to moderately firm, slightly calcareous, scattered slightly limy, trace scattered Limestone - Light to medium brown, cryptocrystalline, dense, scattered fossils.

- 4540-4550 Shale - Predominately medium to dark gray, dark brownish gray, blocky, scattered slightly silty in part, slightly calcareous to scattered slightly limy.
- 4550-4560 Limestone - Light to medium brown, light gray, cryptocrystalline to scattered fragmental, scattered fossils, dense, no visible porosity, good mineral fluorescence, no stain.
- 4560-4610 Shale - Dark brown, dark red, dark gray, scattered medium gray, blocky, scattered slightly platy, silty in part, scattered micaceous, soft, calcareous to slightly calcareous, scattered Limestone - Cream, light gray, dense, cryptocrystalline, no visible porosity, no stain, scattered Sandstone - White, light gray, light green, light greenish gray, fine to medium grained, subangular to angular, poor to moderately sorted, calcareous.
- 4610-4640 Limestone - Light brown, light to medium gray, light grayish brown, cryptocrystalline, dense, traces of scattered small fossils, no stain, good mineral fluorescence, no cut.
- 4640-4670 Shale - Medium to dark gray, dark brown, brownish gray, blocky, silty to slightly sandy in part, calcareous. Limestone - Light brown, medium brown, light to medium gray, cryptocrystalline, dense, no porosity.
- 4670-4690 Limestone - Cream, light brown, light gray, light brown-gray, dense, cryptocrystalline, traces scattered pyrite, trace scattered fossils, no stain, good mineral fluorescence, no cut.
- 4690-4700 Shale - Black, dark gray, dark brownish gray, blocky to platy in part, moderately firm, scattered hard, scattered slightly silty in part, trace of scattered carbonaceous material, slightly calcareous to calcareous, slightly limy.
- 4700-4720 Limestone - Medium to dark gray, scattered light gray, slightly shaly in part, dense, cryptocrystalline, no visible porosity. Shale - Dark red, dark brown, dark gray, blocky calcareous to slightly limy in part, moderately firm to soft. Scattered Sandstone - Gray to light gray, very fine grained, moderate to scattered well sorted, calcareous.
- 4720-4740 Sandstone - Clear, white, light gray, light to medium brown, cream, fine grained to medium grained, angular to subangular, poor to moderately sorted, calcareous, tight, clay filled, scattered micaceous in part, no visible porosity, no stain, no cut.
- 4740-4760 Shale - Dark gray, dark brown, dark red, blocky, scattered silty, scattered subwaxy, soft to moderately firm, calcareous, scattered limy in part. Limestone - Dark brown to light brown, medium gray to light gray, dense, cryptocrystalline, no visible porosity, no stain.

- 4760-4800 Limestone - Light to medium gray, light to medium brown, light brownish gray, cryptocrystalline, dense, argillaceous in part, moderately firm to hard, no stain, no visible porosity, trace of scattered pyrite, traces of scattered chert, trace scattered fossils.
- 4800-4820 Shale - Black, dark gray, blocky to platy, moderately firm, calcareous to limy, slightly silty in part.
- 4820-4830 Limestone - Cream, light to medium brown, light to medium gray, light grayish brown, dense, cryptocrystalline, no visible porosity, argillaceous in part. Shale - Dark brown, dark reddish brown, blocky, slightly silty in part, calcareous to limy.
- 4830-4840 Coal - Black, soft. Shale - Black, dark gray, dark brown, dark reddish brown, blocky to platy, soft to moderately firm, slightly silty in part, calcareous to scattered limy. Limestone - Brown to light brown, dense, cryptocrystalline, no visible porosity.
- 4840-4920 Shale - Black, dark gray, dark brown, dark reddish-brown, blocky to platy, silty, slightly carbonaceous, calcareous to limy, moderately firm to hard, scattered Limestone - Medium brown, scattered light brown, grayish brown, dense, cryptocrystalline to slightly fragmental in part, scattered argillaceous in part, no porosity, trace scattered black coal, scattered brown, dark brown to gray chert.
- 4920-4960 Limestone - Light to medium brown, light to medium gray, light grayish brown, dense, cryptocrystalline, no visible porosity, scattered slightly argillaceous in part, scattered brown, dark brown chert with Shale - Dark brown, dark reddish brown to dark gray, blocky slightly silty in part, calcareous to limy, trace of scattered carbonaceous material in part.
- 4960-5000 Limestone - Light to medium gray, brownish gray, cryptocrystalline to microcrystalline, dense, argillaceous to slightly shaly in part, no visible porosity, no stain, scattered mineral fluorescence, no cut with Shale - Medium to dark gray, dark reddish brown, blocky, calcareous to limy, moderately firm, slightly silty in part.
- 5000-5020 Limestone - Light brown, cream, light gray, dense, cryptocrystalline, slightly argillaceous in part, no visible porosity, no stain, trace of scattered fossils.
- 5020-5050 Shale - Dark gray, dark reddish brown, black, blocky, scattered slightly platy in part, calcareous to limy, scattered slightly silty in part, subwaxy in part, traces scattered black lignite.
- 5050-5070 Limestone - Light brown, light gray, light grayish brown, argillaceous, dense, cryptocrystalline, scattered slightly fragmental, no visible porosity, no stain, no cut, cherty.

- 5070-5080 Shale - Gray, dark gray, dark greenish gray, blocky, silty in part, calcareous to limy, moderately firm to soft.
- 5080-5100 Limestone - Brown to light brown, dense, cryptocrystalline to microcrystalline, moderately firm, scattered slightly argillaceous in part, no visible porosity, no stain, good mineral fluorescence.
- 5100-5120 Dolomite - Gray, brownish gray, shaly, microcrystalline to cryptocrystalline, dense, no visible porosity. Shale - Medium to dark gray, blocky to platy in part, silty, calcareous to limy in part. Limestone - Medium gray, medium brownish gray, microcrystalline to cryptocrystalline, dense, dolomitic, no visible porosity, scattered anhydritic inclusions.
- 5120-5140 Shale - Black, dark gray, dark greenish gray, blocky to platy, soft to moderately firm, calcareous, slightly limy.
- 5140-5170 Anhydrite
- 5170-5180 No Sample
- 5180-5185 Limestone - Brown to light brown, cryptocrystalline to slightly fragmental, dolomitic in part, dense, no visible porosity, slightly anhydritic in part, slightly argillaceous in part, no stain, no cut.
- 5185-5200 Dolomite - Light to medium brown, light reddish brown, light gray, microsugrosic to microcrystalline, abundant pinpoint - small vugs porosity (6-8%), brown to dark brown to scattered black dead oil stain, good greenish gold hydrocarbon fluorescence, good yellow bleeding cut (50%), slightly limy in part.
- 5200-5240 Limestone - Brown, buff, light brown, gray, grayish brown, cryptocrystalline to microcrystalline, traces of scattered pinpoint porosity, trace scattered dark brown stain, scattered dull gold fluorescence, trace scattered weak slight yellow cut, scattered fossils, dolomitic.
- 5240-5250 Shale - Dark gray, black, dark reddish brown, blocky to platy in part, moderately firm to soft, calcareous to limy in part, scattered carbonaceous material in part. Limestone - Light gray, cream, light to medium brown, buff, cryptocrystalline to scattered slightly microsugrosic, dolomitic in part, moderately firm to firm, no visible porosity, no stain.
- 5250-5270 Limestone - Light gray, cream, white, cryptocrystalline to microcrystalline, dense, trace scattered small pinpoint porosity, trace scattered black stain, scattered calcareous filling, no cut, trace scattered dull gold fluorescence, scattered slightly dolomitic.

- 5270-5320 Shale - Black, dark gray, blocky to scattered platy, moderately firm to soft, calcareous to limy. Limestone - Light to medium brown, buff, medium gray, cryptocrystalline, dense, scattered fossils, no visible porosity, traces of scattered light brown stain, no cut, scattered Anhydrite.
- 5320-5350 Anhydrite with Limestone - Gray, microcrystalline, dense, no visible porosity, no stain, no cut, shaly in part, dolomitic.
- 5350-5360 Limestone - Medium gray, brownish gray, dense, microcrystalline to cryptocrystalline, moderately firm to firm, dolomitic in part, scattered shaly in part, scattered anhydritic inclusions, no visible porosity, no stain, scattered mineral fluorescence, no cut.
- 5360-5390 Shale - Dark gray to black, blocky to platy, calcareous, soft, scattered firm, carbonaceous in part, scattered silty in part.
- 5390-5400 Limestone - Brown, light brown, buff, cryptocrystalline to scattered microsucrosic, dense, argillaceous to slightly silty in part, no visible porosity, no stain, scattered mineral fluorescence, no cut, scattered anhydrite, scattered dolomitic in part. Shale - Black, dark gray, blocky to platy.
- 5400-5430 Limestone - Brown, buff, light gray, grayish brown, crypto-crystalline to microcrystalline, anhydritic, scattered slightly dolomitic, argillaceous in part, no visible porosity, no stain, no cut. Scattered white Anhydrite; scattered fossils. Dolomite - Brown to gray, microsucrosic.
- 5430-5440 Limestone - Light to medium gray brown to grayish brown, crypto-crystalline to microcrystalline, dense, scattered slightly dolomitic, argillaceous, no stain, scattered mineral fluorescence, no cut, scattered Shale - Dark gray to black, blocky to platy in part, soft to moderately firm, calcareous. Dolomite - Medium gray, tanish gray, dense, microsucrosic, no visible porosity, scattered slightly limy, no stain, no hydrocarbon fluorescence, no cut, argillaceous.
- 5440-5450 Anhydrite - White, soft. Limestone - Light to medium gray, brownish gray, dense, cryptocrystalline to microsucrosic, dolomitic in part, no visible porosity. Dolomite - Brown, buff, microsucrosic to sucrosic, clay to anhydrite filling, dense, no porosity, slightly limy in part, no stain, no cut.
- 5450-5470 Dolomite - Brown, microsucrosic to slightly sucrosic, trace scattered pinpoint porosity to intragranular dolomitic porosity, faint greenish gold fluorescence, fair yellow streaming cut from dry samples to yellow standing cut from wet samples, scattered black dead oil stain.

- 5470-5480 Dolomite - Brown, light brown, microsugrosic, dense, no visible porosity, no stain to trace scattered black dead oil stain, no cut, trace scattered slight greenish gold fluorescence. Limestone - Brown, gray to grayish brown, dense, cryptocrystalline to microcrystalline, dolomitic, no visible porosity, no stain, no cut. Scattered Shale - Black to dark gray, predominately platy to scattered blocky, soft, calcareous.
- 5480-5500 Shale - Black, platy to blocky, soft, carbonaceous in part, very slightly silty in part, calcareous in part.
- 5500-5530 Limestone - Medium gray, medium brown, brownish gray, dense, cryptocrystalline to microcrystalline, slightly dolomitic in part, argillaceous, no visible porosity, no stain, no fluorescence, no cut, shaly in part.
- 5530-5536 Salt

SHOW ANALYSIS

Hermosa

(4414'-4438') These sands calculated to be wet. An increase in chlorides was noted in the mud. There was some gas present in these very fine grained to medium grained, poorly sorted sands. A gas kick of 125 units was noted from the gas detector. No show or porosity was seen in the samples.

(4722'-4745') These clear to light gray to light brown poorly sorted sands did have some gas. A gas kick of 275 units was noted. These sands also calculated to be wet. An increase in chlorides was also noted after drilling the zone.

Ismay

(5190'-5266') A porosity zone was drilled in the Upper Ismay. We drill stem tested the upper 13 feet of this zone and recovered a significant amount of salt water with small amounts of gas. Gas finally reached the surface in 123 minutes into a 225 minute DST. Numerous gas kicks were noted while drilling this zone. The largest kick of 1460 units was in the upper 5 feet of the zone we tested. This zone (5190'-5266') calculated to be wet from the electrical logs, 50-60% water saturation, with some of the tighter zones calculating lesser amounts of water.

The upper part of this zone was dolomite with only a fair show from the samples. Scattered pinpoint porosity was visible. Spotty oil fluorescence with only a fair oil cut was observed.

Lower Desert Creek

(5455'-5463') The dolomites of this Lower Desert Creek Zone exhibited a poor to fair show in the samples. Only traces of small pinpoint porosity was seen with poor oil fluorescence and oil cut. A large gas kick was observed while drilling this zone. A kick of 2050 units was noted. Our mud weight was 12.5 prior to the gas kick and the gas cut our mud weight to 11.7 lbs/gallon indicating a good amount of gas. After drill stem testing this zone it was apparent that some porosity was present but with very low permeability. Very low flow pressures, only 37 lbs., was noted from the pressure charts. No gas made it to surface during the test. It was also noted that during the final shut-in the gas went back into solution also indicating low permeability with good porosity and high shut-in pressures.

Water saturation values were calculated to be relatively low in this zone, around 35-40%, indicating hydrocarbons are present. The low permeability will not allow these hydrocarbons to flow.

FINAL ANALYSIS

The Raymond T. Duncan, No. 1-25 Bradford Canyon Unit was drilled to a total depth of 5532 feet into the Paradox Evaporites formation. This wildcat was drilled to explore a southeast extension of the No. 1-23 Bradford Canyon Unit discovery well. It was drilled on a seismic high to see if the build-up existed in the Ismay and Desert Creek Members of the Paradox Formation. The well was drilled with no major problems in engineering or geological. The crews of Arapahoe Rig No. 11 performed satisfactorily. The mudlogger from Analex also did a commendable job.

In evaluating the zones penetrated at this location only the very top 4 feet of the Ismay porosity zone (5187'-5191') has any possible potential for any recoverable hydrocarbons. Good porosity is present, but relatively low permeability. Water saturation was calculated to be 40-50%. From the drill stem test we recovered a significant amount of water. This water, however, may have come from a good porosity zone 4 to 5 feet below the upper 4 foot zone.

The 5 to 6 foot zone in the Lower Desert Creek (5454'-5460') has hydrocarbons present, but with extremely low permeability. Good porosity was present (20-25%) with relatively low water saturation (35-40%) making this zone look interesting. The low permeability, (flow pressures of only 37 lbs. with no buildup), makes this zone appear very questionable.

It was decided to plug and abandon this location.

DRILL STEM TEST DATA

DRILL STEM TEST NO. 1: 5177 ft. to 5207 ft.; 30 ft. test; Upper Ismay Formation (Corrected depth: 5173'-5203')

TYPE: Bottom Hole Conventional with no water cushion

FLOW AND SHUT IN DESCRIPTIONS:

IF - 15 Minutes - Open with weak blow increasing to 1½ oz. in 1 minute, 2½ oz. in 2 minutes, 6 oz. in three minutes, 8 oz. in 5 minutes, 10 oz. in 10 minutes, 12 oz. in 15 minutes. No gas to surface.

ISI - 30 Minutes - Surface action died.

FF - 60 Minutes - Open with good blow 5½ oz. to bottom of bucket immediately, 2¼ lbs. in 1 minute on 1/8" surface choke, 3½ lbs. in 5 minutes, 4 lbs. in 10 minutes, 5 lbs. in 15 minutes, 6 lbs. in 30 minutes, 6½ lbs. in 45 minutes. No gas to surface.

FSI - 120 Minutes - Gas to surface in 18 minutes (123 minutes total time into the test). Action slowly died.

RECORDER FIELD PRESSURES:

	<u>Inside (Bottom) Recorder</u>	<u>Outside (Top) Recorder</u>
Location (depth)	5183	5189
IH	2909	2908
IF	66-103	37-75
ISI	2045	2042
FF	103-216	84-187
FSI	2224	2211
FH	2871	2832
Bottom Hole Temp.	126°F	127°F

RECOVERY: Drill Pipe - 184' (.902 Barrels) Gas Cut Mud; 182' (.892 Barrels) Mud Cut Salt Water; total recovery - 366'.

Sample Chamber - 0.31 cu ft. gas; 1625 cc salt water; total fluid - 1625 cc at 160 psi.

RESISTIVITIES:

DRILL PIPE: Top - gas cut mud, 0.41 @ 68°F, 14,000 ppm Cl; Bottom - mud cut water, 0.16 @ 68°F, 51,000 ppm Cl.

SAMPLE CHAMBER: Salt water; 0.04 @ 66°F, 53,000 ppm Cl.

PIT MUD: 0.44 @ 46°F (Pit Mud Filtrate - 0.42 @ 44°F, 12,000 PPM)

DRILL STEM TEST NO. 1 (continued)

OBSERVATIONS AND COMMENTS: Drill Stem Test No. 1 was a successful test. The packers set and held, no mechanical failure was indicated on the test tools, no fluid was lost down hole, and the packers pulled loose easily.

The results of this drill stem test on the Ismay indicates a tight, low permeability water wet zone. The upper portion of the zone may contain enough hydrocarbons to make a small well; the lower zone tested is probably wet.

DRILL STEM TEST DATA

DRILL STEM TEST NO. 2: 5445 ft. to 5465 ft.; 20 ft. test; Lower Desert Creek Formation (Corrected depth 5441'- 5461')

TYPE: Bottom Hole Conventional with no water cushion

FLOW AND SHUT IN DESCRIPTIONS:

IF - 15 Minutes - Open with weak blow bottom of bucket in 1 minute, 1 lb. on 1/8" choke in 10 minutes, 1 lb. in 15 minutes.

ISI - 30 Minutes - Surface action died.

FF - 60 Minutes - Open with strong blow bottom of bucket in 1 minute, 1.75 lb. on 1/8" surface choke in 2 minutes, decreased to 1.5 lb. in 10 minutes, 1.25 lb. in 20 minutes, 1 lb. in 45 minutes, 20 oz. in 55 minutes.

FSI - 120 Minutes - Surface action died.

RECORDER FIELD PRESSURES:

	<u>Inside (Top) Recorder</u>	<u>Outside (Bottom) Recorder</u>
Location (depth)	5416	5451
IH	3631	3651
IF	37-37	37-37
ISI	507	517
FF	28-28	37-37
FSI	3087	3086
FH	3622	3651
Bottom Hole Temp.	128°F	129°F

RECOVERY: Drill Pipe - 30' (.147 barrels) Mud W/oil odor

Sample Chamber - 0.04 cu ft. gas; 400 cc heavy mud W/oil odor; total fluid - 400 cc at 19.5 psi.

RESISTIVITIES:

DRILL PIPE: Heavy mud; 0.58 @ 62°F, 16,000 ppm Cl.

SAMPLE CHAMBER: Heavy mud; sent to a chemical lab.

PIT MUD: 0.38 @ 50°F (Pit Mud Filtrate - 0.17 @ 50°F; 11,500 ppm Cl)

OBSERVATIONS AND COMMENTS: Drill Stem Test No. 2 was a successful test. The packers set and no fluid was lost down hole. No mechanical failure was indicated on the test tool. The packers pulled loose easily and no problems were encountered while tripping out and dismantling the test tool.

As a result of this drill stem test, the Desert Creek at this location appears to have hydrocarbons but with extremely low permeability. These hydrocarbons will not flow. From the charts it was also noted that on the final shut-in the gas went back into solution, confirming very low permeability.

SHOW ANALYSIS

Hermosa

(4414'-4438') These sands calculated to be wet. An increase in chlorides was noted in the mud. There was some gas present in these very fine grained to medium grained, poorly sorted sands. A gas kick of 125 units was noted from the gas detector. No show or porosity was seen in the samples.

(4722'-4745') These clear to light gray to light brown poorly sorted sands did have some gas. A gas kick of 275 units was noted. These sands also calculated to be wet. An increase in chlorides was also noted after drilling the zone.

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The upper part of this zone was dolomite with only a fair show from the samples. Scattered pinpoint porosity was visible. Spotty oil fluorescence with only a fair oil cut was observed.

Lower Desert Creek

(5455'-5463') The dolomites of this Lower Desert Creek Zone exhibited a poor to fair show in the samples. Only traces of small pinpoint porosity was seen with poor oil fluorescence and oil cut. A large gas kick was observed while drilling this zone. A kick of 2050 units was noted. Our mud weight was 12.5 prior to the gas kick and the gas cut our mud weight to 11.7 lbs/gallon indicating a good amount of gas. After drill stem testing this zone it was apparent that some porosity was present but with very low permeability. Very low flow pressures, only 37 lbs., was noted from the pressure charts. No gas made it to surface during the test. It was also noted that during the final shut-in the gas went back into solution also indicating low permeability with good porosity and high shut-in pressures.

Water saturation values were calculated to be relatively low in this zone, around 35-40%, indicating hydrocarbons are present. The low permeability will not allow these hydrocarbons to flow.

FINAL ANALYSIS

The Raymond T. Duncan, No. 1-25 Bradford Canyon Unit was drilled to a total depth of 5532 feet into the Paradox Evaporites formation. This wildcat was drilled to explore a southeast extension of the No. 1-23 Bradford Canyon Unit discovery well. It was drilled on a seismic high to see if the build-up existed in the Ismay and Desert Creek Members of the Paradox Formation. The well was drilled with no major problems in engineering or geological. The crews of Arapahoe Rig No. 11 performed satisfactorily. The mudlogger from Analox also did a commendable job.

In evaluating the zones penetrated at this location only the very top 4 feet of the Ismay porosity zone (5187'-5191') has any possible potential for any recoverable hydrocarbons. Good porosity is present, but relatively low permeability. Water saturation was calculated to be 40-50%. From the drill stem test we recovered a significant amount of water. This water, however, may have come from a good porosity zone 4 to 5 feet below the upper 4 foot zone.

The 5 to 6 foot zone in the Lower Desert Creek (5454'-5460') has hydrocarbons present, but with extremely low permeability. Good porosity was present (20-25%) with relatively low water saturation (35-40%) making this zone look interesting. The low permeability, (flow pressures of only 37 lbs. with no buildup), makes this zone appear very questionable.

It was decided to plug and abandon this location.



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

March 7, 1983

Raymond T. Duncan
1777 South Harrison, P-1
Denver, Colorado 80210

Re: Well No. Bradford Canyon Unit
1-10
Sec. 10, T. 37S, R. 24E.
San Juan County, Utah

Well No. Bradford Canyon Unit
1-25
Sec. 25, T. 37S, R. 24E.
San Juan County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned wells are due and have not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

We will be happy to acknowledge receipt of your response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgment should avoid unnecessary mailing of a firm second notice from our agency.

Thank you for your cooperation relative to the above.

Respectfully,

DIVISION OF OIL, GAS AND MINING

Cari Furse
Well Records Specialist

CF/cf
Enclosure

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN DUAL DATE*
 (See other instructions
 on reverse side)

56 64 01

6

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> Other _____				5. LEASE DESIGNATION AND SERIAL NO. U-36490	
b. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <u>Plugged</u>				6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Raymond T. Duncan				7. UNIT AGREEMENT NAME Bradford Canyon	
3. ADDRESS OF OPERATOR 1777 So. Harrison, P-1, Denver, CO 80210				8. FARM OR LEASE NAME Bradford Canyon	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 2095' FNL; 1885' FWL, SE NW At top prod. interval reported below same At total depth				9. WELL NO. 1-25	
14. PERMIT NO. <u>43-037-30846</u> DATE ISSUED <u>11/8/82</u>				10. FIELD AND POOL, OR WILDCAT Wildcat	
15. DATE SPUNDED <u>12/28/82</u> 16. DATE T.D. REACHED <u>1/14/83</u> 17. DATE COMPL. (Ready to prod.) <u>N/A</u>				11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 25-37S-24E	
18. ELEVATIONS (DF, RSB, RT, GR, ETC.)* 4980' GL				12. COUNTY OR PARISH San Juan	
19. ELEV. CASINGHEAD				13. STATE UT	
20. TOTAL DEPTH, MD & TVD 5536'		21. PLUG, BACK T.D., MD & TVD		22. IF MULTIPLE COMPL., HOW MANY* 0	
23. INTERVALS DRILLED BY		ROTARY TOOLS		CABLE TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* N/A		25. WAS DIRECTIONAL SURVEY MADE No		26. TYPE ELECTRIC AND OTHER LOGS RUN <u>Neutron, Sonic, Laterolog</u>	
27. WAS WELL CORRED No		28. CASING RECORD (Report all strings set in well)			
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)	
13 3/8"		48#		126'	
8 5/8"		24#		2500'	
HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED	
17 1/2"		200 sx. CL B w/addit.			
12 1/4"		1550 sx. CL B w/addit.			
29. LINER RECORD					
SIZE		TOP (MD)		BOTTOM (MD)	
N/A					
SACKS CEMENT*		SCREEN (MD)		TUBING RECORD	
				SIZE	
				N/A	
				DEPTH SET (MD)	
				PACKER SET (MD)	
30. TUBING RECORD					
31. PERFORATION RECORD (Interval, size and number) N/A					
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.					
DEPTH INTERVAL (MD)			AMOUNT AND KIND OF MATERIAL USED		
33. PRODUCTION					
DATE FIRST PRODUCTION N/A		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)			WELL STATUS (Producing or shut-in) Plugged
DATE OF TEST		HOURS TESTED		CHOKE SIZE	
PROD'N. FOR TEST PERIOD		OIL—BBL.		GAS—MCF.	
WATER—BBL.		GAS-OIL RATIO			
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE	
OIL—BBL.		GAS—MCF.		WATER—BBL.	
OIL GRAVITY-API (CORR.)					
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)					
TEST WITNESSED BY J.A. Browning					
35. LIST OF ATTACHMENTS Geologist's Report					
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records					
SIGNED <u>John W. Lowry</u>		TITLE <u>Dist. Drlg. & Prod. Supt.</u>		DATE <u>3/16/83</u>	

*(See Instructions and Spaces for Additional Data on Reverse Side)

RECEIVED

Form 9-331
Dec. 1973

OCT 28 1985

Form Approved
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DIVISION OF OIL
GAS & MINES

5. LEASE
U-36490

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
Bradford Canyon Unit

8. FARM OR LEASE NAME
Bradford Canyon Fed.

9. WELL NO.
1-25

10. FIELD OR WILDCAT NAME
Bradford Canyon

11. SEC., T., R., M., OR BLK. AND SURVEY OR
AREA
Sec. 25-37S-24E

12. COUNTY OR PARISH
San Juan

13. STATE
UT

14. API NO.

15. ELEVATIONS (SHOW OF, KDB, AND WD)
4980' GL: 4993' KB

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☐ other Dry Hole

2. NAME OF OPERATOR
Raymond T. Duncan

3. ADDRESS OF OPERATOR
1777 So. Harrison, P-1 Denver, CO 80210

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 2090' FNL: 1890' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐
FRACTURE TREAT ☐
SHOOT OR ACIDIZE ☐
REPAIR WELL ☐
PULL OR ALTER CASING ☐
MULTIPLE COMPLETE ☐
CHANGE ZONES ☐
ABANDON* ☐

☐
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☐

(other) Ready for Inspection

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Subject well is ready for final inspection. Pits have been restored, and location seeded.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED John A. Bertridg TITLE Oper. Supt. DATE 10/23/85

John A. Bertridg

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY: